Panduan Menjawab Komentar Pengulas pada Artikel Status Under Review di Jurnal Internasional

by Rika Taslim

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Prof. Dr. Erman Taer, M.Si
Apriwandi, M.Si

PANDUAN

MENJAWAB KOMENTAR PENGULAS PADA ARTIKEL STATUS *UNDER REVIEW* DI JURNAL INTERNASIONAL

Panduan

Menjawab Komentar Pengulas pada Artikel Status *Under Review* di Jurnal Internasional

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Taman Karya

Panduan
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Artikel Status *Under Review* di Jurnal
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Prof. Dr. Erman Taer, M.Si
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PRAKATA

Alhamdulillah, segala puji dan syukur penulis panjatkan kehadirat Allah SWT karena buku berjudul "Panduan Menjawab Komentar Pengulas pada Artikel atus Under Review di Jurnal Internasional" telah selesai disusun dengan baik. dan lancar. Buku ini disusun agar dapat menjadi bahan referensi bagi mahasiswa/dosen/peneliti merespon komentar peninjau (*reviewer*) dalam proses perbaikan naskah untuk dapat lay diterbitkan pada jurnal internasional bereputasi. Lebih lanjut, keberhasilan buku ini tentu tidak terwujud tanpa adanya dukungan dan bantuan dari berbagai pihak.

Proses review atau pertinjauan merupakan satu dari beberapa tahap dalam publikasi artikel ilmiah. Setelah mengirimkan manuskrip untuk publikasi disuatu jurnal penerbit, tentunya kita senang ketika editor memutuskan melanjutkan proses ini pada peninjauan oleh rekan sejawat (*under review*). Editor akan mengirimkan manuskrip untuk ditinjau kepada beberapa orang yang memiliki bidang kepakaran yang serupa.

Buku ini tidak luput dari kekurangan dan kesalahan. Jika pembaca menemukan salahan apapun, penulis mohon maaf setulusnya. Penulis pun menyadari jika di dalam penyusunan buku ini mempunyai kekurangan, namun penulis meyakini sepenuhnya bahwa walau bagaimanapun penulis berharap buku ini memberikan sebuah manfaat bagi pembaca. .

Terakhir, kritik, masukan, dan saran dari pembaca sangatlah berguna untuk penulis kedepannya.

Pekanbaru, Januari 2023

Penulis

DAFTAR ISI

BAB 1 PENDAHULUAN

Proses *review* atau pertinjauan merupakan satu dari beberapa tahap dalam publikasi artikel ilmiah. Setelah mengirimkan manuskrip untuk publikasi disuatu jurnal penerbit, tentunya kita senang ketika editor memutuskan melanjutkan proses ini pada peninjuauan oleh rekan sejawat (*under review*). Editor akan mengirimkan manuskrip untuk ditinjau kepada beberapa orang yang memiliki bidang kepakaran yang serupa. Biasanya proses ini berlangsung dalam jangka waktu tertentu dalam kurun 2 pekan hingga 4 bulan (tergantung jurnal penerbit). Setelah itu, kita mendapatkan ulasan kembali dan editor meminta untuk merevisi manuskrip berdasarkan komentar dari beberapa pengulas. Bagaimana kita harus menanggapi dan menyikapi hal ini? Dalam buku ini dibahas secara lengkap bagaimana teknik dan langkah yang baik dan benar dalam menyiapkan jawaban dari komentar-komentar yang diberikan oleh para pengulas (*reviewer*).

Pada masa sekarang ini, sangat jarang sekali sebuah manuskrip atau naskah dapat diterima tanpa melewati proses pertinjauan atau revisi. Setidaknya, sebuah manuskrip mengalami revisi kecil (*minor revision*) yang diminta oleh editor. Keputusan ini biasanya diambil oleh editor tanpa mengirimkan manuskrip untuk ditinjau oleh rekan sejawat. Kasus seperti ini jarang terjadi mengingat keketatan dalam penyeleksian manuskrip yang diterbitkan. Ketika revisi besar dinilai perlu oleh editor (*mayor revision*), maka manuskrip dikirimkan pada beberapa pakar untuk diulas lebih dalam demi perbaikan manuskrip berkualitas tinggi. Salah satu alasan paling umum suatu manuskrip direvisi dan ditinjau ulang adalah manuskrip ditulis dengan format yang tidak sesuai dengan jurnal penerbit. Manuskrip yang ditulis tidak sesuai dengan intruksi jurnal penerbit merupakan kesalahan mendasar yang menggiring opini negatif pada manuskrip tersebut. Lebih lanjut, pertinjauan lebih jauh diperlukan untuk memastikan kelayakan dan kualitas data, metode yang dipilih, variabel penelitian, dan analisis yang termuat diadalamnya.

Idealnya, proses peninjauan dapat secara signifikan meningkatkan manuskrip dengan memungkinkan kita mempertimbangkan saran dari berbagai pakar dibidang yang sama. Secara empiris, manuskrip yang telah menjalani beberapa putaran tinjauan oleh rekan sejawat terbukti dapat menghasilkan manuskrip lebih baik daripada manuskrip yang lebih cepat diterima. Namun demikian, dalam prakteknya proses ini dapat membebani penulis secara emosional. Hal ini biasanya terjadi karena penulis berkutik dengan komentar yang mungkin kurang informasi, makna yang bias, atau komentar yang mengandung kontradiksi bagi kita. Hal yang sering terjadi adalah penulis terlalu fokus pada merevisi manuskrip itu sendiri tanpa membuat tanggapan menjadi jelas dan menarik. Hasilnya dapat berupa kesalahpahaman antara pengulas dan penulis dan pada akhirnya, kemungkinan penolakan terhadap manuskrip berkualitas tinggi. Atas dasar ini, diperlukan suatu pedoman dan teknik serta metode yang tepat dan baik dalam menanggapi semua ulasan yang telah diberikan oleh rekan sejawat. Lebih lanjut, azas-azas perbaikan objektif serta berpengaruh besar pada perbaikan manuskrip lebih diutamakan. Buku ini menyajikan solusi realistis bagaimana seorang penulis dapat menanggapi komentar dan ulasan dari rekan sejawat dan editor pada jurnal internasional bereputasi secara efektif dan efisien yang disertai dengan tips dan trik praktisnya.

BAB 2 TRIK UMUM MENGULAS PERTINJAUAN YANG EFEKTIF DAN EFISIEN

Menanggapi komentar peninjau sejawat seringkali bisa membuat stres, terutama jika komentarnya lengkap dengan revisi metode, teknik pengumpulan data, keabsahan data serta analisis yang dilakukan. Bab ini berisi cara umum untuk membantu penulis menanggapi komentar pengulas secara efektif dan efisien. Ada beberapa poin yang perlu diperhatikan dalam mengulas dan menjawan pertinjauan yang telah didapatkan dari rekan sejawat, diantaranya adalah sebagai berikut.

1. Siapkan "*cover letter*" tanggapan penulis

Cover letter tanggapan biasanya akan dimulai dengan ringkasan perubahan, menampilkan data tambahan dan analisis baru yang dilakukan sebagai tanggapan atas kritik paling penting dari semua peninjauan. Lebih lanjut, tanggapan dapat berupa gambar dan tabel yang bermanfaat bagi peninjau dalam memahami ulasan jawaban yang diberikan, tetapi tidak dimasukkan kedalam manuskrip atau data tambahan. Hasil revisi ini dapat disebutkan dalam pendahuluan. Jika kritik diajukan oleh banyak pengulas, hal ini dapat ditunjukkan dalam ringkasan. Setelah itu, surat tanggapan harus berisi kumpulan ulasan lengkap dengan tanggapan yang disisipkan. Dibawah ini diberikan contoh *cover letter* tanggapan pada jurnal internasional. Catatan: Teks dalam tanda kurung [seperti ini] berisi tips untuk penulis yang dapat diganti dan diubah sesuai kebutuhan.

Contoh *cover letter* 1:

Dear Editor and Reviewers,
Thank you for evaluating our manuscript [sebutkan judul manuskrip] in [sebutkan nama jurnal yang dituju].
We greatly appreciate the editor's consideration of this manuscript for publication and valuable review comments. We have made every attempt to respond to all comments and questions raised by the reviewer and have adjusted the manuscript accordingly. All

revisions in the manuscript are given a yellow highlight background.
We confirm that this manuscript was revised in accordance with the reviewers' comments of [nama jurnal yang dituju]. We hopeful this manuscript can be accepted and published at the [nama jurnal yang dituju].

Best regards,
Name of corresponding author
Corresponding Author

Contoh *cover letter* 2:

Dear Dr./ Mr./Ms. [sebutkan nama lengkap editor],
Thank you for giving me the opportunity to submit a revised draft of my manuscript titled [sebutkan judul manuskrip] to [nama jurnal yang dituju]. I/We [pilih salah satu yang dianggap mewakili] appreciate the time and effort that you and the reviewers have dedicated to providing your valuable feedback on my manuscript. I am/We are grateful to the reviewers for their insightful comments on my paper. I/We have been able to incorporate changes to reflect most of the suggestions provided by the reviewers. I/We have highlighted the changes within the manuscript.
Here is a point-by-point response to the reviewers' comments and concerns.

2. Semua tinjauan direspon dengan hormat dan sopan

Merespon tinjauan secara hormat dan sopan merupakan bagian yang penting dalam menjawab semua komentar pengulas. Hal ini dapat membantu kita dalam memberi pemahaman yang jelas atas jawaban yang diberikan pada pengulas. Respon seperti ini dapat diawali dengan ucapan terimakasih. Merasa dihargai dan direspon dengan baik menjadi pintu yang cukup menjanjikan dalam meyakinkan editor dan pengulas dalam mengevaluasi naskah kita. Meskipun dalam penilaian kita pengulas tidak memiliki kapasitas intelektual dalam menanggapi manuskrip tersebut. Namun, ingatlah bahwa jika peninjau gagal memahami sesuatu penjelasan,

kesalahannya mungkin terletak pada kita sebagai penulis karena tidak menjelaskan maksudnya dengan cukup jelas. Jika pengulas tampaknya tidak ahli di bidang tersebut, ingatlah bahwa tingkat keahlian ini atau kekurangannya mungkin mewakili banyak pembaca jurnal. Tujuan kita dengan hal ini membuat manuskrip menjadi jelas dan dapat diakses oleh semua pembaca, bukan hanya para ahli.

Terkadang, kita perlu menghabiskan waktu lebih pada suatu komentar/tinjauan untuk memahami kritik tertentu. Dalam beberapa kasus, pertanyaan yang diajukan oleh peninjau mengungkapkan kesalahpahaman yang lebih dalam tentang keseluruhan studi atau beberapa asumsi di dalamnya. Ketika komentar tertentu tampak tidak masuk akal, dan diikuti oleh banyak komentar serupa pada pengulas lain, ini mungkin karena manuskrip tidak cukup menjelaskan hipotesis yang ingin dituju.

Lebih lanjut, dalam beberapa kasus, kita mungkin dihadapkan dengan asumsi bahwa pengulas pendendam atau pesaing yang memiliki motif tersembunyi untuk menunda penerbitan manuskrip. Dalam situasi seperti ini, kita sebaiknya tidak boleh langsung menghadapi pengulas dalam tanggapan resmi yang diberikan, tetapi komunikasikan kekhawatiran ini kepada editor dalam surat terpisah. Hal ini jauh lebih baik dalam proses penerbitan manuskrip pada jurnal yang diharapkan.

Sebagai tambahan, dalam kasus yang sangat jarang sekali, penulis terkadang merasa bahwa kritik pengulas tidak sopan. Dalam situasi seperti itu, penting untuk diingat bahwa miskomunikasi mungkin terjadi. Apapun, kritik kasar yang dituliskan oleh pegulas tidak serta merta membenarkan adanya tanggapan kasar, terutama karena tujuan utama kita adalah untuk mempublikasikan hasil penelitian secara ilmiah. Beberapa contoh dari kasus-kasus diatas diulas seperti dibawah ini.

Contoh ulasan 1: *"The present research is interesting and meets the scope of the journal. Some items listed as follow should be carefully revised before further consideration for publication. For introduction section, some newly published review papers on plant derived porous carbon may be enriched in the revision, such as Journal of Power Sources 520, 2022, 230886. Sugar beet pulp*

derived oxygen-rich porous carbons for supercapacitor applications.

Authors' Response: *We appreciate the reviewer for very constructive suggestion [ucapan terimakasih atau kalimat sopan dan kata hormat lain]. We have mentioned and added the newly published review papers in the introduction section, page 3, with yellow highlight background.*

Page 3, with yellow highlight background

....This is also in accordance with a new study reported by Jiang et al. (2022) which confirms the potential of the plant as an advanced material electrode for supercapacitor [14]. Despite the relatively..."

Contoh ulasan 2: *"The authors have made adequate and reasonable changes addressing most of the reviewers' comments. Only one issue left unaddressed. Reviewer 1 commented firstly that the CO_2 treatment process in this work should be called chemical activation. I agree with this point. The manuscript, however, still contains the term of physical activation.*

Authors' Response: *Thank you for pointing this out [ucapan terimakasih atau kalimat sopan dan kata hormat lain]. However, we have studied several research articles and review articles about the CO_2 treatment in the conversion of biomass to activated carbon. The CO_2 treatment at high temperatures is a process of physical activation. This is similar as stated by several references Journal of Cleaner Production 229 (2019) 1427-1442, Renewable and Sustainable Energy Reviews 52 (2015) 1282–1293, and Bioresource Technology 132 (2013) 254–261. In our opinion, the CO_2 treatment in this manuscript is still classified as physical activation because the CO_2 treatment is carried out at a high temperature of 850 °C".*

3. Terima kesalahan

Menulis naskah ilmiah atau manuskrip merupakan pekerjaan yang membutuhkan tingkat ketelitian tinggi demi mendapatkan naskah yang baik dan berdampak besar bagi pembaca. Namun demikian, tidak dapat dipungkiri bahwa dalam menyiapkan manuskrip, sering kali kita tidak luput dari kesilapan atau

kesalahan pengetikan dan lain yang serupa. Lebih lanjut, penyampaian kalimat yang gagal dipahami oleh pengulas pun dapat terjadi. Bahkan jika kita sudah yakin bahwa teksnya sudah jelas tapi, mungkin peninjau hanya melewatkannya, pertimbangkan kembali untuk merevisi teks dan mengutip teks yang direvisi dalam tanggapan kita. Secara umum, bahkan jika perubahan yang diminta tampaknya tidak perlu, biasanya lebih baik untuk melanjutkan dan merevisi dengan tujuan menunjukkan kepada pengulas bahwa mereka didengarkan dan dipahami dengan baik. Beberapa kasus yang ditemukan dilustrasikan pada contoh dibawah ini.

Contoh ulasan 1: *English needs improvement (I found some grammatical and typographical errors throughout the manuscript; the author should rectify them).*
Authors' Response: *We appreciate and thank the reviewer for the very constructive comments in this manuscript [ucapan terimakasih atau kalimat sopan dan kata hormat lain]. We apologize for the mistakes. Accordingly, we have corrected grammatical and typographical errors and improved the wordings across the revised manuscript. We also have proofreading our manuscripts to official institutions and it has been certified. Hopefully, the revised manuscript is found to be more convenient to read.*

Contoh ulasan 2: *Authors are asked to avoid the use of the "Meanwhile" connector in scientific papers (unless it is about time-sequencing of some events). There are more adequate transition words like "in addition" or "on the other hand" etc., and in our experience nothing is lost in meaning or explanation if those sentences starting with Meanwhile don't have a connector at all.*
Authors' Response: *We appreciate and thank the editor for the very constructive comments in this manuscript [ucapan terimakasih atau kalimat sopan dan kata hormat lain]. We have revised the manuscript as a whole, especially the transition word "meanwhile" in the manuscript. All of this revised marked with yellow highlight background.*

4. Buat respon perubahan secara terpisah

Saat membuat perubahan pada teks atau gambar, kutip perubahan secara langsung dalam respons. Jika memungkinkan, perubahan yang diberikan dapat merujuk ke nomor baris spesifik tempat perubahan diterapkan. Hal ini dapat dilakukan hingga menyebutkan nomor baris dan halaman dari naskah asli atau yang direvisi. Surat tanggapan yang lengkap memudahkan pengulas untuk memahami dengan tepat apa yang dilakukan tanpa harus bolak-balik antara naskah dan tanggapan yang dibuat. Lebih lanjut, dengan membuat tanggapan secara mandiri, dapat mengurangi kemungkinan pengulas membaca naskah lengkap dan menemukan hal-hal baru untuk dikeluhkan dan dijadikan pertanyaan baru. Satu-satunya pengecualian untuk poin ini adalah ketika sebagian besar teks yang dimodifikasi terlalu panjang untuk dikutip. Perubahan tersebut dapat dengan mudah disinggung secara eksplisit seperti memberikan judul bagian baru dalam tanggapan. Beberapa kasus yang ditemukan dilustrasikan pada contoh dibawah ini.

Contoh ulasan 1: *Why the device showed better electrochemical performance in 1M H_2SO_4 than 6M KOH?*

Authors' Response: *We thank the reviewer for the comment. The banana leaves-based carbon electrode's capacitive properties in the 1 M H_2SO_4 acid electrolyte were better than the 6 M KOH alkaline electrolyte. This is due to the five-fold higher ionic conductivity of H^+ 350.1 $cm^2 \Omega^{-1} mol^{-1}$ compared to K^+ 73.5 $cm^2 \Omega^{-1} mol^{-1}$, therefore, H^+ ions have the highest mobility capability that contributes to improving the performance of the electrode material [68,69]. This property also affects the cell resistance, wherein alkaline electrolyte was relatively higher by $26 \cdot 10^{-3}$ Ω than the salt electrolyte of $15 \cdot 10^{-3}$ Ω in the PAC-800. These statements were added in the results and discussions part, lines 443-449.*

The results and discussions part, lines 443-449

The banana leaves-based carbon electrode's capacitive properties in the 1 M H_2SO_4 acid electrolyte were better than the 6 M KOH alkaline electrolyte. This is due to the five-fold higher ionic conductivity of H^+ 350.1 $cm^2 \Omega^{-1} mol^{-1}$ compared to K^+ 73.5 $cm^2 \Omega^{-1} mol^{-1}$, therefore, H^+ ions have the highest mobility capability that contributes to improving the performance of the electrode material

[68,69]. This property also affects the cell resistance, wherein alkaline electrolyte was relatively higher by $26 \cdot 10^{-3}$ Ω than the salt electrolyte of $15 \cdot 10^{-3}$ Ω in the PAC-800.

Contoh ulasan 2: *The author has mentioned "pores". The pore unit was micro. In the activated carbon, is the micro-unit significant? If the micro-unit is essential in the paper, it would need to be explained in the paragraph for reason. If not, replace "pores" with other words to replace them.*

Author's response: *We thank reviewer to point out this issue. In this experiment, we prepared activated carbon electrode in monolithic form through pelletizing method. The pellet was formed prior to pyrolysis (carbonization and physical activation) by molded the powder of ACH into a coin-liked shape. From SEM image on electrode after pyrolysis, it generates open pores network between adjacent the aggregates/powders, sizing in the range of micrometer (called macropore). The open pores network can play as channel transport to inside pore of activated carbon, such us meso and micropores. Accordingly, we have included this information in the manuscript and replaced the word "pores" into "open pores network", which is given as follows.*

Results and Discussion section, Structural Characteristic subsection, Page 7, Line 28-31

"There are some open pores network between the aggregates, though within 0.51 - 0.97 µm. It is also clear that ACH-0 have various range of aggregates as shown by the marked region in the Fig.2 (b). The aggregate size and open pores network ranged from 0.28 to 0.47 µm and 35–84 nm, respectively."

Results and Discussion section, Structural Characteristic subsection, Page 8, Line 7-9

"This further predicts the open pores network of ACH-0 which produce specific surface area and supports ion diffusion into mesopores and micropores."

5. Mulailah tanggapan untuk setiap komentar dengan jawaban langsung ke poin yang diangkat

Menanggapi komentar dapat memberikan informasi pengantar, namun harus melakukannya setelah memberikan tanggapan utama. Berikan jawaban "ya" atau "tidak" bila memungkinkan. Jika peninjau benar, nyatakan demikian dalam tanggapan. Tujuannya adalah untuk menunjukkan kepada pengulas bahwa kita menanggapi komentar mereka dengan serius, dan kita harus segera menyampaikan apa yang dilakukan sebagai tanggapan atas kritik mereka.

Contoh ulasan 1: *Some abbreviations in the text should be defined the first time they are mentioned.*
Authors' Response: *We appreciate the reviewer for very constructive suggestion. We have been added and modified some abbreviations which defined for the first time, such as ...*

Contoh ulasan 2: *Equations 1-4 used to calculate specific capacitance, specific energy and specific power are not explicitly given in this paper.*
Authors' Response: *We appreciate the reviewer for very constructive suggestion. We have been modified a revised this statement in the manuscript, page 4, Confirmation of electrochemical properties subsection, with yellow highlight background.*

6. Menggunakan tipografi

Surat tanggapan yang memuat perbaikan naskah ditampilkan dalam perubahan jenis huruf, warna, dan indentasi teks perubahan, Tipografi digunakan untuk membedakan antara 3 elemen berbeda peruabahn, meliputi ulasan itu sendiri, tanggapan terhadap ulasan, dan perubahan yang dibuat pada naskah. Penggunaan tipografi ini dapat dijelaskan dalam pengantar tanggapan dibagian awal.

Contoh pengantar: *We greatly appreciate the reviewer's comments of this manuscript for publication. We have made every attempt to respond to all comments and questions raised by the reviewer and have adjusted the manuscript accordingly. All revisions in the manuscript are given a yellow highlight background.*

Contoh ulasan: *Is the density reduction of SP-$ZnCl_2$ sample the largest after high-temperature pyrolysis process? Please recalculate the density reduction of the SP-KOH, SP-$ZnCl_2$, and SP-NaOH samples.*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We so apologize about our mistake. We have been recalculated the density reduction of SP-KOH, SP-$ZnCl_2$, and SP-NaOH samples. The largest density reduction was found in SP-NaOH samples with percentage of 27.05%, and followed by the SP-$ZnCl_2$ and SP-KOH samples at 22.44% and 4.89%, respectively. This statement also added and modified in the manuscript, results and discussions part, materials properties analysis subsection, paragraph 1, remark with yellow highlight background.

Results and discussions part, materials properties analysis subsection, paragraph 1, remark with yellow highlight background.

...after the pyrolysis, the densities were 0.8455, 0.8489, and 0.5889 g cm^{-3}, respectively. The largest density reduction of 27.07% was obtained in the SP-NaOH sample, followed by the SP-$ZnCl_2$ and SP-KOH samples at 22.44% and 4.89%, respectively. Therefore, chemical activation also significantly affects the sample's....

7. Tanggapi setiap poin yang diajukan oleh pengulas

Kekeliruan yang sering terjadi dalam menangapi komentar pengulas adalah bahwa penulis gagal untuk menanggapi beberapa poin yang disampaikan. Dalam beberapa kasus, peninjau mungkin tidak setuju dengan tanggapan penulis, tetapi penulis tidak boleh mencoba menghindari poin yang sulit hanya dengan mengabaikannya.

Seringkali, ulasan akan disusun menjadi poin-poin, tetapi beberapa peninjau dapat mengajukan dua masalah terpisah dalam satu poin. Dalam situasi seperti itu, pastikan untuk menanggapi secara eksplisit kedua kritik tersebut. penulis boleh menyisipkan tanggapan sedemikian rupa sehingga memecah 1 butir dengan beberapa tanggapan. Biasanya lebih baik melakukan ini daripada mencoba menanggapi banyak poin dalam 1 blok teks.

Contoh ulasan: *Are the rod-like monoliths the porous carbon? Elemental composition measurement can be used to reveal the elemental distribution.*

Author's response:

We thank reviewer for the comment. A rod-like is one of morphology structure from porous carbon derived from biomass waste. This morphology structure also has been reported by several studies such as: Biomass-Derived Porous Carbon Materials for Supercapacitor, Frontiers in Chemistry, 2019. Biomass-Swelling Assisted Synthesis of Hierarchical Porous Carbon Fibers for Supercapacitor Electrodes. ACS Appl Mater Interfaces. 2016;8:28283–90. A green and template-free synthesis process of superior carbon material with ellipsoidal structure as enhanced material for supercapacitors. J Power Sources. 2018;405:80–8. Available from: https://doi.org/10.1016/j.jpowsour.2018.10.034 [tanggapan untuk ulasan bagian pertama].

Furthermore, to evaluate the elemental composition in porous carbon has been investigated by using EDS measurement which confirmed in Table 2 [tanggapan untuk ulasan bagian kedua].

8. Tetap tanggapi ulasan meskipun tidak dapat membuat perubahan/tambahan data/analisa

Secara umum, penulis harus menghindari kesan bahwa metode eksperimen atau analisis yang telah dibuat tidak ingin diganggu atau ditambahkan oleh pengulas. Walaupun demikian, penulis tetap memberikan tanggapan terhadap ulasan yang diusulkan pengulas. Jika tidak ingin mengubah, menambahkan atau merevisi data/analisis dalam manuskrip, sampaikan alasan penulis dengan santun dan masuk akal sehingga ini memudahkan pengulas untuk memahami pemikiran penulis. Dalam beberapa kasus, jika peninjau membuat saran terperinci atau sangat mendalam yang dimasukkan ke dalam naskah yang direvisi, mungkin tepat untuk menambahkan ucapan "terima kasih" secara eksplisit kepada pengulas di bagian akhir naskah. Hal ini dianggap wajar dan banyak penulis menyertakan pengakuan dari pengulas dipublikasi mereka. Namun demikan, beberapa jurnal tidak mengizinkan

adanya ucapan terimakasih atau pengakuan pengulas untuk dimasukkan dalam naskah.

Contoh ulasan: *The cycling stability test of the symmetric cells CSAC7 and CSAC9 should be added and discussed in the article.*
Authors' Response:
We appreciate the reviewer for very constructive suggestion. In this study, we were unable to provide cycling stability data due to the supercapacitor electrode design we used. We used a supercapacitor electrode design like two stacks of binder-free solid coins bounded by a separator. This type of design cannot be tested for cycling stability due to electrolyte leakage if tested in the long term. Therefore we cannot provide cycling stability data. However, such a design is an advantage in this report because it maintains the conductivity of the sample and it produces accurate and real specific capacitance values. Similar things have also been reported in various previous articles, such as: Journal of Energy Storage 40 (2021) 102823 and International Journal of Energy Research 46 (2022) 1467-1480.

Contoh ulasan 2: *For electrochemical measurements 3-electrode measurements should be report as well not that of the device alone*
Authors' Response:
We appreciate the reviewer for very constructive suggestion. In this study, we have chosen to use a two-electrode configuration for CV-GCD-EIS measurements, due to exhibit closer to the true value of supercapacitor performance than 3-electrode system, although it displays different capacitance results and is relatively lower than 35 *three-electrode configuration. This is related with refer of Physica B: Condensed Matter, Volume 405, Issue 9, 1 May 2010, Pages 2286-2289, Journal of Energy Storage 40 (2021) 102823, chemnanomat 8 (2022) e202100388, and International Journal of Energy Research 46 (2022) 1467-1480. We use a solid coin electrode design that is stacked like two coins bounded by an organic separator. This design is one of the novelties of this paper because it is free of binders and it can maintain the real conductivity of the material thus performing a more accurate and real specific capacitance. Furthermore, this design cannot be*

tested using a three-electrode system. In addition, the three-electrode system is considered to display high capacitance but does not represent the real value of the material due to the presence of a reference electrode and the use of adhesive materials. Therefore, we chose a two-electrode system, which is commonly reported in previous studies, such as: Journal of Energy Storage 40 (2021) 102823, chemnanomat 8 (2022) e202100388, and International Journal of Energy Research 46 (2022) 1467-1480.

Lebih lanjut, terkadang penulis menilai bahwa pengulas hanya meminta terlalu banyak. Penulis berhak menyampaikan pandangan terhadap masukan yang tidak memungkinkan atau berlebihan ini. Lebih lanjut, menyertakan perbandingan naskah penulis dengan artikel yang bertema sama dianggap lebih baik untuk menyadarkan pengulas. Jika pengulas meminta 10 hal, dan penulis mengatakan bahwa 9 dari 10 di antaranya berada di luar lingkup pekerjaan Anda, maka kemungkinan besar Anda tidak akan memuaskan pengulas. Namun, jika dari 10 ulasan, 8 diantaranya dapat dikomentari dengan baik maka kemungkinan besar naskah penulis dapat diterima untuk dilpublikasikan.

Sebagai tambahan, dalam menanggapi komentar peninjau mungkin perlu juga mempertimbangkan editor. Misalnya, editor sering meminta penulis mempersingkat manuskrip mereka yang terkait dengan batas halaman dari proses publikasi dan produksi naskah, sedangkan pengulas sering meminta detail, eksperimen, atau analisis tambahan. Jika, misalnya, seorang pengulas meminta penulis untuk memindahkan beberapa konten dari suplemen ke manuskrip utama, penulis sebaiknya mengatakan bahwa kita bersedia melakukannya jika editor setuju.

9. Perubahan naskah harus signifikan terhadap versi sebelumnya

Saat penulis membuat perubahan sebagai tanggapan atas komentar pengulas, terkadang sulit untuk menyampaikan kepada pengulas dengan tepat apa isi perubahan itu. Kesalahan umum adalah penulis menanggapi komentar pengulas dengan mengatakan, "Poin ini dibahas dalam naskah dengan cara berikut..." Tanggapan ini gagal menjelaskan apakah penulis hanya menunjukkan teks yang sudah ada di versi manuskrip sebelumnya,

atau penulis menjelaskan perubahan yang telah dimasukkan ke dalam versi baru. Dalam tanggapan Anda, rujuk secara eksplisit ke versi manuskrip penulis sebelumnya dan yang direvisi dan jelaskan perubahan apa yang telah dibuat.

Contoh ulasan: *On page 8, the authors described that "Both CSAC7 and CSAC9 samples display two clearly confirmed broad peaks at 2θ angles 24° and 44° which correspond to the scattering planes 002 and 100. These characteristics show that the structure of the turbostratic/disturbed carbon has a high amorphous nature". In fact, the XRD spectrum of CSAC7 and CSAC9 are quite different. The diffraction peaks at 2θ angles 24° and 44° were became the sharp-peaks for CSAC9. Moreover, a new peak was observed at 38-39°. These issues should be further discussed in the article.*

Authors' Response:

We appreciate and thank the reviewer for the very constructive comments in this manuscript. We have been modified and revised this statement in the manuscript, result and discussions section, XRD analysis, with yellow highlight background.

Result and discussions section, XRD analysis, before revision

The XRD pattern with different physical activation temperatures particularly between 700 and 900 °C, is shown in Figure 2. Both CSAC7 and CSAC9 samples display two clearly confirmed broad peaks at 2θ angles 24° and 44° which correspond to the scattering planes 002 and 100. These characteristics show that the structure of the turbostratic/disturbed carbon has a high amorphous nature [Naskah sebelum diperbaiki]

Result and discussions section, XRD analysis, after revision

The CSAC7 display two clearly confirmed broad peaks at 2θ angles 24.34° and 43.92° which correspond to the scattering planes 002 and 100. These characteristics show that the structure of the turbostratic/disturbed carbon has a high amorphous nature [36]. On the other hand, CSAC9 performed low broad peaks at angles of 2θ 24.86 and 44.13 indicating the amorphous nature degraded

towards graphitization due to high-temperature treatment. In addition, sharp peaks were also found at angles of about 38-39°, indicating metal oxide $CaO/CaCO_3$. This analysis is in agreement with previous studies
[Naskah setelah diperbaiki]

10. Kendalikan emosi pribadi

Proses peninjauan yang dilakukan oleh pengulas tentunya tidak serta merta mengerti secara baik apa yang ada pada naskah penulis. Masalah sering terjadi jika pengulas ternyata tidak dapat memahami naskah dengan baik (menurut penulis) menjadi alasan utama tanggapan yang dibuat relatif tidak ramah dan terbawa suasana hati. Apalagi jika pengulas secara langsung menyatakan bahwa naskah sangat tidak layak untuk dipublikasi. Pada tahap ini sangat penitng sekali dalam meredam emosi sesaat dan perlu berpikiran jernih bahwa bisa saja pengulas tidak begitu mengerti keterbaharuan dari naskah yang diajukan.

Cara yang cukup ampuh menanggulangi ini adalah bahwa penulis dapat menulis naskah perbaikan secara terpisah. Naskah dan surat tanggapan dikerjakan diwaktu yang berebda. Sebaiknya kerjakan perbaikan naskah terlebih dahulu. Setelah beberapa saat kemudian dilanjutkan dengan mengerjakan surat tanggapan untuk pengulas. Dalam beberapa kasus penulis mungkin dapat membuat surat terpisah kepada editor pelaksana. Dalam surat ini, penulis dapat mengatasi masalah tentang potensi konflik kepentingan yang mungki dapat terjadi. Penulis juga dapat menunjukkan permintaan pengulas yang bertentangan satu sama lain sehingga konflik kepentingan dapat dihindari.

Contoh ulasan: *The paper does not present any degree of novelty, and after examining the electrochemical part (supercapacitors) of the paper I am unable to conclude that the overall impact are high enough to justify publishing in the Journal of energy storage, considering the fact that electrochemical measurement is wrong and far below what is currently available in the literature What is the novelty in this current article as so many paper related to similar to this work reported excellent electrochemical properties*

When compared to what is in this paper. For example " 1. Preparation of Hierarchical Porous Activated Carbon from Banana Leaves for High-performance Supercapacitor: Effect of Type of Electrolytes on Performance. https://doi.org/10.1002/asia.202001342. 2. Supercapacitors from Activated Carbon Derived from Banana Fibers J. Phys. Chem. C 2007, 111, 20, 7527-7531.

Authors' Response:

We thank the reviewer for the comment. However, we tried to presenting our best performance to exhibit a good scientific paper [tetap direspon dengan sopan dan baik]. Also we have tried to fulfill all the reviewers' comments. In this paper, we try to obtain something new in this research. In this work, we report the hierarchical porous carbon derived from banana leaves on several points that are different from those mostly reported, particularly in literature 1. [Ulas kelebihan naskah secara eksplisit dan singkat, sertakan poin-per-poin].

- Hierarchical porous carbon is synthesized simply a coin solid with a free-binder design without the addition of an adhesive material such as PVP so that the capacitance obtained is the real value of the carbon material itself.

- The separator used is an organic separator.

- Although the surface area is relatively low, the sample can produce higher capacitance compared to literature 1. This is indicated that the surface area of the sample and the developing pores can be accessed as a whole by the electrolyte ions.

- Furthermore, the work of literature 2 is clearly different from our report because literature 2 uses banana stem as the raw material of porous carbon. In addition, the obtained electrochemical values are relatively lower than this work.

BAB 3 KUMPULAN ULASAN PADA ARTIKEL ILMIAH BIDANG MATERIAL, KARBON MONOLIT, SUPERKAPASITOR TAHUN 2019-2022

Pada bab ini disajikan kumpulan kumpulan dari komentar pengulas dalam naskah yang telah terbit pada rentang tahun 2019 hingga 2022. Lebih lanjut, bidang artikel yang dipilih, ulasan dan jawaban komentar difokuskan pada bidang material sains, khususnya karbon berpori berbentuk monolit/koin untuk aplikasi superkapasitor. Diharapkan bahwa bab ini dapat dijadikan sebagai contoh dalam menanggapi komentar pengulas agar mendapatkan perbaikan naskah yang baik dan benar. Kumpulan ulasan disajikan dalam beberapa sub-bab dengan klasifikasi pengukuran sifat material yang berbeda meliputi analisis densitas, analisis XRD, analisis SEM, analisis EDS, dan analisis serapan gas N_2. Ulasan dan respon yang disampaikan pada bab ini telah dikerjakan dan hasil naskah perbaikan telah diterima dan diterbitkan pada jurnal internasional bereputasi. Pada setiap akhir ulasan dituliskan artikel terbitnya.

1. Komentar pengulas dan jawabannya pada analisis *X-ray diffraction* (XRD)

Pada bagian ini disajikan beberapa komentar pengulas dan respon penulis mengenai analisis dan interpretasi data XRD pada artikel ilmiah internasional dalam bidang superkapasitor berbasis limbah biomassa.

Ulasan 1: *These degrees correspond to 002 reflections, thereby 194 indicating a hexagonal configuration of porous carbon and the existence of a small amount of 195 graphite microcrystalline structure (100). This not corrects the presence of these peaks simply show that you have carbon materials and not hexagonal configuration. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. This statement has corrected and modified which indicated with yellow highlight background, subsection 3.2 Microstructure characteristic analyses, line 196-198.

Subsection 3.2 Microstructure characteristic analysis, line 196-198

The XRD pattern displayed two strong broad peaks at 2θ scale by approximately 24.077-25.112° and 42.461-44.453° (JCPDS No. 41-1487) [25,38]. These degrees correspond to 002 reflections, thereby indicating a porous carbon material and the existence of a small amount of graphite microcrystalline structure (100).

Ulasan 2: *These characteristics demonstrated the amorphous 196 behavior of activated carbon monolith with small crystals. What characteristic are author referring to here. They need to be specific. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We apologize for our mistakes. This statement was modified and corrected which indicated with yellow highlight background, subsection 3.2 Microstructure characteristic analysis, line 198-199. However, the small amount of the crystal structure were contributed by presence of sharp peaks in the XRD pattern, indicating the existence of crystal elements in the sample, such as CaCO3 (JCPDS No. 82- 1690), SiO2 (JCPDS No. 89-1668), and ZnO (JCPDS No. 79-2205).

Ulasan 3: *Where do this originate from ZnO, SiO2, and CaCO3 in XRD tested. Please explain more on this. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We thank the reviewer for the comment. The Zn, Si, and Ca elements in the form of oxides and carbonates are derived from the basic component of banana leaves waste which added in lines 213-

*214. This is also reported in another study such as Lasbela, Uni. J. Sci., Tech. **2014**, 3, 26-32. In addition, this element also confirmed in the EDS analysis, lines 280-282.*

Ulasan 4: *Discussion on the XRD data is problematic. Peak shifts cannot be detected in Figure 2, regarding 001 and 100, which is inconsistent with the sentence on line 202. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We appreciate and thank the reviewer for the very constructive comments in this manuscript. We apologize for our mistakes. These statements have been removed and modified in this manuscript, fully this is modified and corrected in subsection 3.2 Microstructure characteristic analysis, line 196-200.

Subsection 3.2 Microstructure characteristic analysis, line 196-200

The XRD pattern displayed two strong broad peaks at 2θ scale by approximately 24.077-25.112° and 42.461-44.453° (JCPDS No. 41-1487) [25,38]. These degrees correspond to 002 reflections, thereby indicating a porous carbon material and the existence of a small amount of graphite microcrystalline structure (100).

Ulasan 5: *On page 7 lines 35-36, the author claims the sample is amorphous and mentioned the sample has strong diffraction peaks of carbon at 22-24 degrees. It is based on the XRD analysis result as shown in Figure 3. It is totally weird! If amorphous, it is supposed to be no diffraction peaks in the XRD pattern. If there is a peak, it is meant the sample is crystalline. The reviewer wonder which type of sample is expected in this study. [Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480].*

Authors' Response:

We appreciate and thank the reviewer for the very constructive comments in this manuscript. We have tried to analyze the XRD related discussion as well as possible and in accordance with the XRD analysis that has been widely reported previously. The broadening peak at 22-24 degrees is related with turbostratic

disturbed carbon structure and leading to amorphous properties carbon material in the electrodes. This analysis is correlated with other previously report J. Mater. Res. Technol. 2020;9:13332–13340; Electrochim. Acta. 2020;331: 135348; J. Mater. Res. Technol. 2020;9:13332–13340.; Nanotechnology. 2019;30; J. Electroanal. Chem. 2020;877:114656; J. Energy Storage. 2020;32:101908. The turbostratic disturbed carbon structure may have been due to the existence graphitic-like microcrystallites and pseudo-crystallite structure that are randomly oriented and distributed which impacted pores structure morphology 35. This property is advantageous in expanding the contact area of the electrolyte ions on the surface of the electrode material. These statements have been added and revised in the manuscript, result and discussion part, subsection 3.1. Density, crystallinity properties, morphological features, paragraph 2, with yellow highlight background

Ulasan 6: *The XRD tests showed that the peaks of samples had obvious change. The reason for these changes should be discussed. [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340].*

Authors' Response:

We thank the reviewer for the comment. Furthermore, the diffraction of the lattice peaks of ACS700 moved to a lower angle from 26° to 24° and from 45° to 43°, indicating that the interlayer spacing of ACS700 were greater than the ACS500 and ACS600. This may have been due to the existence of vast micropores and a random combination of graphitic and chaotic stacking which expected higher specific surface area. This reason was added in the manuscript, result and discussion part, page 3 and 4, first paragraph.

Result and discussion part, page 3 and 4, First paragraph

Furthermore, the diffraction of the (002) and (100) lattice peaks of ACS700 moved to a lower angle from 26° to 24° and from 45° to 43°, indicating that the interlayer spacing of ACS700 were greater than the ACS500 and ACS600. This may have been due to the existence of vast micropores and a random combination of

graphitic and chaotic stacking which expected higher specific surface area.

Ulasan 7*: I wonder why the activated samples include CaCO3, SiO2 and ZnO in XRD data. [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340].*

Authors' Response:

We appreciate thank the reviewer for the comment. Normally, activated samples do not exhibit impurities such as $CaCO_3$, SiO_2, and ZnO due to the presence of acid treatment as a neutralized process. However, this can only be carried out for carbon powder samples. In our research, there are still impurities; especially $CaCO_3$, SiO_2, and ZnO due to our samples are prepared in monolith form without the addition of adhesives materials. Acid treatment will reduce the self-adhesive behavior of the sample so that it cannot maintain its monolith shape. The process of neutralizing the sample is only carried out using distilled water until it neutral.

2. Komentar pengulas dan respon penulis pada analisis *scanning electron miroscopy* (SEM)

Pada bagian ini disajikan beberapa komentar pengulas dan respon penulis mengenai analisis dan interpretasi data *scanning electron miroscopy* (SEM) pada artikel ilmiah internasional dalam bidang superkapasitor berbasis limbah biomassa.

Ulasan 1: *How was pore size determined from SEM? [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We thank the reviewer for the comment. In this report, the pore size on SEM micrographs was measured using IC Measure software.

Ulasan 2: *In addition, no macro-mesopores were found on the sample surface of this precursor's morphology. How was this determined. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We thank the reviewer for the comment. However, it is correct information. We have evaluated the pore size in the SEM micrograph through the IC Measure software and we did not find any pore sizes in the meso- and macropores size ranges

Ulasan 3: *The SEM image does not have the scale bar. The authors should provide the scale bar. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We apologize for our mistakes. We have been revised and added the scale bar in the Figure 3c

Ulasan 4: *The authors demonstrated the porous hollow carbon nanofiber/nanosheet structures were exhibited, however, no direct evidence to prove this. Figure 4d is not clear. Please provide. [Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. The nanofiber/nanosheet structures were confirmed in Figure 4, SEM image. In this figure, we added with arrows which indicate the nanofiber, hollow fiber and nanosheet in the samples, especially in Figure 4a, 4b, and 4c. This claim is similar with other previously reported such as Adv Nat Sci Nanosci Nanotechnol 2020;11:25007. Furthermore, we also revised and modified Figure 4d with higher resolution than before.

Ulasan 5: *The morphology from SEM images is not nanosheet. [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340].*

Authors' Response:

We thank the reviewer for the comment. We have tried to present our best performance to exhibit a good scientific paper as well as the SEM image analysis. We have also read several scientific reports to support all analysis and interpretation of the data in the manuscripts. However, it is true that the SEM images in our manuscript have shown the nanosheet and nanofiber structures.

This SEM image is similar to some previously reported manuscripts such as Taer et al., Int J Energy Res. 2020;1–14. Yin et al., Materials and Design 111 (2016) 44–50. Qi et al., Journal of Power Sources 353 (2017) 260-269. Zang et al., Journal of Power Sources 448 (2019) 227446.

Ulasan 6: *As authour said, did the morphology of resultant porous carbon show any advantage in application? [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. The morphology structure of nanofiber/nanosheet in this manuscript could affect the electrochemical behavior of the supercapacitor. Nanofiber/nanosheet structures effectively facilitate the diffusion of electrolyte ions in sheet-to-sheet, and offer more active sites to form electric double layers, and additionally, the abundance of porosity in nanosheets decorated by nanofibers has a high combination of micro- and mesoporous active sites for ions to form electric double layers, and channels to simplify the diffusion process and accelerate the ion rate transformation. We have mentioned and added this discussion in the result and discussion part, page 4 paragraph 2 and 3, Page 5 paragraph 1, and page 6 paragraph 6.

Section Results and Discussion, Page 4, Paragraph 2

These nano-scale structures effectively prevent nanosheet stacks, increase open surface area, facilitate the diffusion of electrolyte ions in sheet-to-sheet, and offer more active sites to form electric double layers [23].

Section Results and Discussion, Page 4, Paragraph 3

The relatively large amount of fibers allows for well-connected pores and facilitates easier ion diffusion. The process of activation of high-temperature physical activation has a real effect, and the development of mesopores on the surface of the electrode is visible. Additionally, the abundance of porosity in nanosheets decorated by nanofibers has a high combination of micro- and mesoporous active sites for ions to form electric double layers, and channels to simplify the diffusion process and accelerate the ion rate transformation.

Section Results and Discussion, Page 5, Paragraph 1

This nanoscale structure is critical in providing active sites for ion diffusion and offering high specific surface areas on carbon. The unique nanostructure combination of activated carbon produced from pure biomass material (Syzygium oleana leaves) without other synthetic substances is an extraordinary achievement in the material surface. This has a major contribution in determining the ideal material for high-performance supercapacitor electrodes.

Section Results and Discussion, Page 6, Paragraph 2

The specific capacitance of ACS600 sample was significantly higher than those of ACS500, and ACS700, despite the not higher in specific surface area due to combination structure of nanosheet and nanofiber contribute to the accessibility of suitable active surface area , intercalation/de-intercalation reaction easily occurred in H_2SO_4 electrolyte thereby increasing the double layer as well as pseudocapacitance [31]. In addition, the higher S_{mic}/S_{BET} provide three-dimensional pore connections for ion diffusion into electrode/ electrolyte interface.

Ulasan 7: *Analyze the structure-activity relationship between material morphology and composition and electrochemical properties. [Artikel terbit: ChemNanoMat, 8 (2) 2022, e202100388].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have been added the structure structure-activity relationship between material morphology and composition and electrochemical properties in the manuscript, in the result and discussion part, especially in SEM analysis, FTIR analysis, EDS analysis, CV and GCD analysis. We remark it with yellow highlight background.

SEM analysis, with yellow highlight background

Consequently, the morphological structure was maintained as a stable macro/meso 3D pores structure without obvious collapse (Fig. 2(c)), after carbonization and high temperature re-arrangement at 600°C and 900°C, respectively. However, both macro-pore and meso-pore sizes shifted towards a larger range between 101-773 nm and 36-46 nm, correspondingly. These

configurations provided high ionic active contact and structural stability in support of extensive functionality in energy storage systems [50].

FTIR analysis, with yellow highlight background

The chemical reaction of $ZnCl_2$ with precursor carbon at high-temperature pyrolysis can hydrolyze $ZnCl_2$·nH2O and produce oxychloride (ZnOCl). Increasing the pyrolysis temperature from 700 °C to 900 °C allows the production of more ZnOCl due to their interaction with CO_2 gas. Evaporation of Zn due to high temperature can etch the carbon matrix chains thereby initiating the formation of a 3D pore structure, as confirmed by SEM micrograph. Rich-free oxygen is left behind to bind to the activated carbon in the matrix. Thus, the sample is significantly affected by the heteroatom effect, as confirmed in FTIR spectrum (–OH and C–OH hydroxyl groups). In addition, the functional groups of CC, and C–C occurred at the peak of 2330 cm^{-1} and 702 cm^{-1}, and strongly confirmed the $ZnCl_2$ impregnated samples at high temperature, as the entire materials were dominated with high carbon content [53]. This analysis is also relevant to the EDS characterization further discussed.

EDS analysis, yellow highlight background

Additionally, oxygen, as the second-highest element, contributes in a different way. $ZnCl_2$ impregnation at high temperatures of 700 °C to 900 °C significantly enriches elemental oxygen. This is due to the formation of high oxychloride compounds accompanied by evaporation of Zn due to high temperatures, which results in high oxygen contributed to oxide compounds. The carbon precursor will also benefit from increased wettability as well as surface hydrophilicity and pseudo-capacitive properties [58,59]. This circumstance was also confirmed in the cyclic voltammetry and galvanostatic charge discharge analyses. Therefore, the wettability and hydrophilic behavior of the electrode surface also contributed significantly in promoting the electrostatic adsorption of supercapacitors.

Electrochemical analysis, with yellow highlight background

These increments also instigated further development of 3D hierarchical micro/meso-rich pores and maximum capacitance while sustaining the pseudo-capacitive behavior. The scattered

pores are beneficial to the electrolyte ions towards generating additional electrostatic layers, providing diffusion space in every directions [70], maintaining a relatively short diffusion distance to obtain high capacitive properties of 366 F g^{-1} as well as boosting the specific energy and power to 49.44 Wh kg^{-1} and 178.18 W kg^{-1}, respectively. However, an extension in pyrolysis temperature above 900°C is expected to reduce the O-heteroatom, while retaining ABL900 pseudo-capacitance features. In addition, the presence of various macropores also exhibited superior capacitive with specific energy and specific power estimated at 30.41 Wh kg^{-1} and 109.61 W kg^{-1}, respectively.

Ulasan 8: *Has the morphology and structure of the material changed after the reaction? The author needs to provide characterization data after catalytic reaction. [Artikel terbit: ChemNanoMat, 8 (2) 2022, e202100388].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. The chemical impregnation of ZnCl2 at different high temperature pyrolysis significantly changed the surface morphology structure resulting in a 3D hierarchical pore structure, as shown in the SEM micrograph. However, this study did not provide further characterization after the electrochemical properties of the samples were analyzed. We focused on the effect of chemical activation and physical activation to produce self-oxygen-heteroatom doped 3D porous carbon derived from banana leaves.

3. Komentar pengulas dan respon penulis pada analisis *energy dispersive spectroscopy* (EDS)

Pada bagian ini disajikan beberapa komentar pengulas dan respon penulis mengenai analisis dan interpretasi data *energy dispersive spectroscopy* (EDS) pada artikel ilmiah internasional dalam bidang superkapasitor berbasis limbah biomassa.

Ulasan 1: *Are the rod-like monoliths the porous carbon? Elemental mapping measurement can be used to reveal the elemental distribution. [artikel: Journal of Chemical Technology & Biotechnology, 96 (13) 2021, 662-671].*

Author's response:

We thank reviewer for the comment. A rod-like is one of morphology structure from porous carbon derived from biomass waste. This morphology structure also has been reported by several studies such as: Biomass-Derived Porous Carbon Materials for Supercapacitor, Frontiers in Chemistry, 2019. Biomass-Swelling Assisted Synthesis of Hierarchical Porous Carbon Fibers for Supercapacitor Electrodes. ACS Appl Mater Interfaces. 2016;8:28283–90. A green and template-free synthesis process of superior carbon material with ellipsoidal structure as enhanced material for supercapacitors. J Power Sources. 2018;405:80–8. Available from: https://doi.org/10.1016/j.jpowsour.2018.10.034. Furthermore, to evaluate the elemental composition in porous carbon has been investigated by using EDS. In the current conditions, we have not been able to carry out elemental mapping measurements because the related laboratory cannot be used due to the COVID-19 quarantine period.

Ulasan 2: *The heteroatom in porous carbon should be investigated. [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340].*

Authors' Response:

We thank the reviewer for the comment. The heteroatom in porous carbon has been investigated by using EDS. This result data can be seen in tabel. However, this data couldn't be add in manuscript caused the page limitations.

Element contents of the ACSs samples

Element	*ACS500*	*ACS600*	*ACS700*
C	*86.41*	*90.62*	*76.19*
O	*9.18*	*7.59*	*16.56*
Mg	*0.26*	*0.30*	*0.36*
Cl	*0.41*	-	-
Ca	*0.66*	*1.02*	*6.48*
Zn	*3.08*	-	-
K	-	*0.47*	-
Si	-	-	*0.40*

The carbon element has the highest percentage for all carbon monolith samples. A high percentage implies that most of the volatile and non-carbon content of the sample has been removed during the activation process. The higher temperatures carbonization of 500 °C to 600 °C indicate an increasing percentage of carbon, showing that the decomposition of non-carbon compounds such as organic acids, volatile, and tar occur effectively. This analysis is confirmed by the reduction of the carbon monolith density described previously. At 700 °C carbonization temperature, the percentage of carbon is reduced slightly with the addition of more oxygen components. Therefore, the carbonization temperature of 700 °C is more likely to form more oxygen bonds than carbon atoms. A high percentage of oxygen originates from physical activation agents while low levels of magnesium, calcium, chlorine and zinc come from the organic material itself.
Furthermore, we could be investigate the heteroatom by using XPS caused the instruments are not available in our lab. We have also tried to contact several universities and related laboratories in Indonesia to take measurements of the GCD/EIS but due to the current pandemic COVID-19 all laboratories have been closed for an unspecified time limit.

4. Komentar pengulas dan respon penulis pada analisis serapan gas N_2

Pada bagian ini disajikan beberapa komentar pengulas dan respon penulis mengenai analisis dan interpretasi data serapan gas N2 termasuk kontribusi mikro-mesopori dan distribusi ukuran pori pada artikel ilmiah internasional dalam bidang superkapasitor berbasis limbah biomassa.

Ulasan 1: *Also looking at table 3 the PAC-700 has the highest micropore volume of 0.2695 and is expected to give the best electrochemical result but this is not the case. Can authors give reason to this. Because the micropores are responsible for charge storage. The higher the micropores the better the electrochemical results. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We thank the reviewer for the comment. Although the AC-700 has the highest micropore volume of 0.2695, the best electrochemical properties are not found in the AC-700. This is because the AC-700 does not have the highest surface area. As we know, the surface area is a major factor in improving the electrochemical performance of supercapacitors. Usually, microporosity contains bottlenecks can decrease ion mobility drastically, thus reducing the power capability of the electrode. Mesopores are not narrow paths slowing down the ion transport, so these can maintain capacitance even at high current densities.

Ulasan 2: *Why the hysteresis loops not closed in the low relative pressure (Fig. 6)? The reasons should be given. [Artikel terbit: Journal of Chemical Technology & Biotechnology, 96 (13) 2021, 662-671].*

Author's response:

We thank reviewer for the comment. We conducted N_2 sorption to examine the structural characteristic of CPs samples. From BET, we found that the adsorption/desorption N_2 is typically isotherm IV. It depicts the hysteresis loop, which indicated the capillary condensation of mesopores. However, the isotherm curve for CP-0.5 and CP-0.9 samples showed a distortion hysteresis curve (not closed). This loop hysteresis distortion occurred due to the presence of ink-bottled shaped and numerous narrow necks pore. This thin nature hinders N_2 gas desorption because of pore constriction, although $ZnCl_2$ chemical impregnation (0.5 M to 0.9 M) successfully enlarge the specific surface area to 495.08 m^2 g^{-1} (CP-0.5), 632.19 m^2 g^{-1} (CP-0.7), and 759.81 m^2 g^{-1} (CP-0.9) with CP-0.9 exhibiting the highest values. This analysis was added in the manuscript, result and discussion part, N_2 absorptions part, paragraph 1.

Result and discussion part, N_2 absorption part, paragraph 1.

This loop hysteresis distortion occurred due to the presence of ink-bottled shaped and numerous narrow neck pores. This thin nature hinders N_2 gas desorption because of pore constriction [54], although $ZnCl_2$ chemical impregnation (0.5 M to 0.9 M) successfully enlarge the specific surface area to 495.08 m^2 g^{-1} (CP-0.5), 632.19 m^2 g^{-1}

(CP-0.7), and 759.81 m^2 g^{-1} (CP-0.9) with CP-0.9 exhibiting the highest values.

Ulasan 3: *Why many of the N_2 adsorption-desorption isotherms are not closed? [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340].*

Authors' Response:

We thank the reviewer for the comment. The isotherm curve for ACS500 and ACS600 samples showed an imperfect H4 type hysteresis curve (not closed) which indicated mesopores developing like ink bottles with narrow neck pore involving complex mechanisms. The capillary condensation from the pore tissue is blocked by narrowing the pores, slowing down the rate of desorption [27]. The higher addition to the 700°C carbonization temperature for ACS700 sample causes the ink bottle pores to degrade and form an intact mesoporous. This leads to an ideal type IV hysteresis loop, as shown on the ACS700 isotherm curve. This analysis was added in the manuscript, result and discussion part, page 5, paragraph 2.

Result and discussion part, page 5, paragraph 2

The isotherm curve at carbonization temperatures of 500°C and 600°C for ACS500 and ACS600 samples shows an imperfect H4 type hysteresis curve. This is indicated by mesopores developing like ink bottles with narrow neck pore involving complex mechanisms. The capillary condensation from the pore tissue is blocked by narrowing the pores, slowing down the rate of desorption [27]. The higher addition to the 700°C carbonization temperature for ACS700 sample causes the ink bottle pores to degrade and form an intact mesoporous. This leads to an ideal type IV hysteresis loop, as shown on the ACS700 isotherm curve.

BAB 4 KUMPULAN ULASAN DAN RESPON PADA ARTIKEL ILMIAH BIDANG ELEKTROKIMIA, KARBON BERPORI, SUPERKAPASITOR TAHUN 2020-2022

Bab ini mengulas tentang kumpulan kumpulan dari komentar pengulas dan respon penulis dalam merevisi naskah yang telah terbit pada rentang tahun 2020 hingga 2022. Lebih lanjut, bidang artikel yang dipilih, ulasan dan jawaban komentar difokuskan pada sifat elektrokimia dari karbon berpori berbasis biomassa untuk aplikasi elektroda superkapasitor. Dari hasil ulasan dan respon yang diberikan, naskah revisi telah diterbitkan dijurnal internasional bereputasi. Pada setiap akhir ulasan dituliskan artikel terbitnya. Diharapkan bahwa bab ini dapat dijadikan sebagai contoh dalam menanggapi komentar pengulas agar mendapatkan perbaikan naskah yang baik dan benar. Kumpulan ulasan disajikan dalam beberapa sub-bab dengan klasifikasi pengukuran sifat elektrokimia menggunakan instrument berbeda meliputi analisis *cyclic voltammetry* (CV), *galvanostatic charge-discharge* (GCD), dan *electrochemical impedance spectroscopy* (EIS).

1. Komentar pengulas dan respon penulis pada analisis *cyclic voltammetry* (CV)

Komentar dan ulasan mengenai analisi elektrokimia menggunakan instrument CV relatif sering dijumpai pada naskah artikel yang membahas karbon superkapasitor. Pada bagian ini disajikan beberapa komentar pengulas dan respon penulis mengenai analisis dan interpretasi data *cyclic voltammetry* (CV) pada artikel ilmiah internasional dalam bidang superkapasitor berbasis limbah biomassa.

Ulasan 1: *Please give more explanation on the reason of the worse rate capability of CP-0.7 compared to that of CP-0.9. [Artikel: Journal of Chemical Technology & Biotechnology, 96 (13) 2021, 662-671].*

Author's response:

We thank reviewer for the constructive suggestion. CP-0.9 exhibited the best rate dependence with 70% of 74 F g^{-1}, attained at

the scan rate of 10 mV s-1, while CP-0.5 and CP-0.7 showed similar trend with ~76% of 61 and 32 F g^{-1}, respectively, and at the scan rate of 10 mV/s. This is influenced by the pores which dominated the carbon electrodes samples. The CP-0.7 sample was dominated by micropores which caused a hamper of the electrolyte ion flow at higher scanning rates and it exhibited a decrease in ion flow rate and led to worse rate capability of the samples. This analysis was added in the manuscript, result and discussion part, cyclic voltammetry analysis subsection, last paragraph.

Result and discussion part, cyclic voltammetry analysis subsection, last paragraph

Specifically, CP-0.9 exhibited the best rate dependence with 70% of 74 F g-1, attained at the scan rate of 10 mV s-1, while CP-0.5 and CP-0.7 showed similar trend with ~76% of 61 and 32 F g-1, respectively, and at the scan rate of 10 mV/s. This is influenced by the pores which dominated the carbon electrodes samples. The CP-0.7 sample was dominated by micropores which caused a hamper of the electrolyte ion flow at higher scanning rates and it exhibited a decrease in ion flow rate and led to worse rate capability of the samples.

Ulasan 2: *In Fig 5b, the legends which explain the scan rate of CV experiment will be better if they are arranged similar as Fig 5a. [Artikel terbit: Communications in Science and Technology, 5 (1) 2020, 22-30].*

Authors' Response:

We are truly grateful for reviewer's correction and suggestion in this manuscript. We have redesigned the Fig 5b, and rearranged their legend, as following as figure;

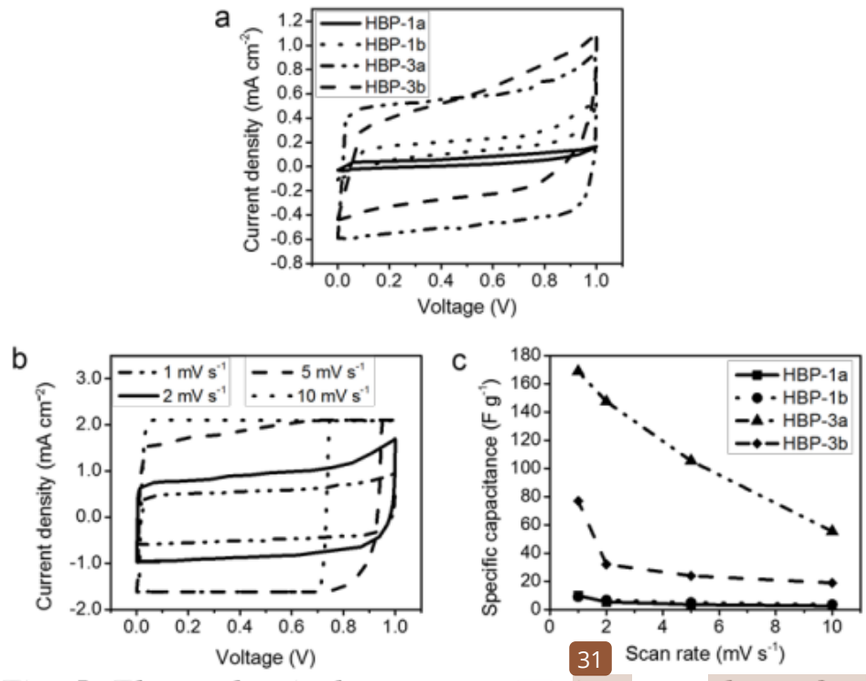


Fig. 5. Electrochemical measurement in a two-electrode system: (a) CV curves from HBP-s samples at a scan rate of 1 mV s-1; (b) CV curve from HBP-3a at different scan rates; (c) the specific capacitance from HBP-s samples at different scan rate.

Ulasan 3: *How the capacitance was calculated the details of the formulae used should be provided. Also it is more realistic and practical to calculate the specific capacitance from Charge discharge rather than the CV. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We thank the reviewer for the comment. The values of capacitances in this manuscript are the real/actual capacitance of the carbon material. We are carefully testing CV (in two-electrode system) and calculating capacitance. The CV was tested using the Rad-Er 5841 instrument, calibrated with VersaStat II Princeton Applied Research with an error of ± 6.05%. Capacitance is calculated by a standard formula, where the mass of the test electrode and the current for each sample are shown in the table following.

$$C_{sp} = \frac{I_c - I_d}{s.m}$$

39

Based on this data, the materials have specific capacitance of 58 F g^{-1}, 196 F g^{-1}, 225 F g^{-1}, and 175 F g^{-1} for Precursor, PAC700, PAC800, and PAC900 samples, respectively. This is similar with our previously report with refer of Advances in Natural Sciences: Nanoscience and Nanotechnology 11(2):025007; Journal of Chemical Technology & Biotechnology 96(3) 2021.

Ulasan 4: *The authors should explain the deviation of the CV curves from their ideal rectangular shape. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. A higher increase in activation temperature, from 700°C to 900°C, shows a rectangular shape with deviation due to the pseudo-capacitive contributions of oxygen content of PACs samples. This indicates that an increase in temperature is beneficial for increasing ion diffusion capability at high handling rates with increased electrical conductivity. These statements were added in the results and discussions part, lines 388-390.

The results and discussions part, lines 388-390

Furthermore, a higher increase in activation temperature, from 700°C to 900°C, shows a rectangular shape with deviation due to the pseudo-capacitive contributions of oxygen content of PACs samples.

2. Komentar pengulas dan respon penulis pada analisis *galvanostatic charge-discharge* (GCD)

Komentar dan ulasan mengenai analisi elektrokimia menggunakan instrument GCD relatif sering dijumpai pada naskah artikel yang membahas karbon superkapasitor. Pada bagian ini disajikan beberapa komentar pengulas dan respon penulis mengenai analisis dan interpretasi data *galvanostatic charge-discharge* (GCD) pada artikel ilmiah internasional dalam bidang superkapasitor berbasis limbah biomassa.

Ulasan : *The GCD measurement is an important means to evaluate the electrochemical performance of electrode materials. Then the*

authors should provide the related results. [Artikel: Journal of Chemical Technology & Biotechnology, 96 (13) 2021, 662-671].

Author's response:

We thank reviewer for the very constructive comment. We have tried to presenting our best performance to evaluate the electrochemical performance of electrode materials. However, we couldn't provide GCD measurement in this manuscript because the instruments are not available in our lab. We have also tried to contact several universities and related laboratories in Indonesia to take measurements of the GCD but due to the current pandemic which increases in our country, all laboratories have been closed for an unspecified time limit. We hope the reviewers understand our constraints a good scientific paper. Furthermore The CV curve presents the electrochemical performance of CPs samples to the reader, which value determined in the specific capacitance parameter (Cs). As the concentration 48 *$ZnCl_2$ increased, the Cs value changes. The Cs is influenced by physical properties, such as specific surface area and pore size distribution, as well as morphology structure.*

3. Komentar pengulas dan respon penulis pada analisis *electrochemical impedance spectroscopy* (EIS)

Komentar dan ulasan mengenai analisi elektrokimia menggunakan instrument EIS relatif sering dijumpai pada naskah artikel yang membahas karbon superkapasitor. Pada bagian ini disajikan beberapa komentar pengulas dan respon penulis mengenai analisis dan interpretasi data *electrochemical impedance spectroscopy* (EIS) pada artikel ilmiah internasional dalam bidang superkapasitor berbasis limbah biomassa.

Ulasan: *Cycling performance is an important factor to evaluate the electrode materials. Therefore, the authors should provide the cycling measurements. [Artikel: Journal of Chemical Technology & Biotechnology, 96 (13) 2021, 662-671]*

Author's response:

We thank reviewer for the very constructive comment. Cycle performance couldn't be evaluated using EIS because the instrument is not available in our laboratory. Furthermore, we

have attempted to contact several relevant laboratories to measure cycle performance in Indonesia. However, our monolith sample does not fit well with existing EIS instruments. In addition, we have also contacted university laboratories in nearby countries such as Malaysia but were constrained due to the current pandemic COVID-19. We hope reviewers understand our limitations

BAB 5 KUMPULAN ULASAN DAN RESPON "LAIN-LAIN" PADA ARTIKEL ILMIAH KARBON BERPORI UNTUK SUPERKAPASITOR TAHUN 2020-2022

Bab-bab sebelumnya telah menyajikan secara rinci tentang komentar dan respon pada analisis sifat material dan elektrokimia superkapasitor berbasis biomassa. Namun dekimian, selain komentar diatas, juga ditemukan beberapa komentar dan ulasan yang berkaitan dengan kesalahan penulisan, rekomendasi referensi tambahan, perubahan kalimat pada bagian abstrak, pendahuluan, metode, hasil, pembahasan dan kesimpulan. Oleh karena itu, bab ini menyajikan tentang kumpulan kumpulan komentar pengulas dan respon penulis terkait hal tersebut pada naskah revisi dalam rentang tahun 2020 hingga 2022. Dari hasil ulasan dan respon yang diberikan, naskah revisi telah diterbitkan dijurnal internasional bereputasi. Pada setiap akhir ulasan dituliskan artikel terbitnya. Diharapkan bahwa bab ini dapat dijadikan sebagai contoh dalam menanggapi komentar pengulas agar mendapatkan perbaikan naskah yang baik dan benar. Kumpulan ulasan disajikan dalam beberapa sub-bab dengan klasifikasi pengukuran sifat elektrokimia menggunakan instrument berbeda meliputi analisis kesalahan penulisan, rekomendasi refrensi tambahan, dan isi naskah (abstrak, pendahuluan, metode, hasil/pembahasan, dan kesimpulan).

1. Komentar pengulas dan respon penulis pada kesalahan penulisan

Kesalahan penulisan merupakan bagian yang tidak terpisahakan dengan menulis suatu artikel ilmiah sehingga sangat wajar jika pengulas mengomentari hal ini. Komentar pengulas ditemukan beragam seperti kesalahan kata, kalimat yang ambigu, bahasa yang tidak padu, bahkan mengomentari kekeliruan suatu analisis yang ditulis. Pada sub-bab ini disajikan komentar-komentar serupa lengkap dengan respon penulis dibawahnya.

Ulasan 1: *Authors claim "However, there is no research on the use of banana leaves activated carbon as an electrode material for energy storage devices, especially supercapacitors" this is an*

incorrect statement. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We apologize for our mistakes and our negligence in reading the latest literature. We have revised and modified this statement in the manuscript. We have mentioned and added the related discussion in the introduction part, line 94-98, yellow highlight background and pages 5.

Introduction part, lines 94-98, pages 5.

Recently, dried banana leaves were converted into hierarchical porous carbon for supercapacitor with high specific surface area of ~1459 $m^2 g^{-1}$ with specific capacitance as high as 190 $F g^{-1}$ [32]. However, this is still used the addition of adhesives materials such as polyvinyl pyrrolidine (e.g. PVDF or PVP), which inhibit the attainment of electrochemical behavior and added the cell resistances of the samples.

Ulasan 2: *Some little typo errors are found. Please carefully check the sentences again. [Artikel terbit: International Journal of Energy Research, 44 (13) 2020, 1-14].*

Authors' Response:

We appreciate thank the reviewer for the comment. We have corrected the typo and errors in the manuscript.

Ulasan 3: *The 1M KOH was used as activation agent, it is not correct, in general, it should be the mass ratio of KOH to biomass. [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340].*

Authors' Response:

We thank the reviewer for very constructive suggestion. We have corrected and exchange the 1M KOH to ratio of mass KOH and carbon powder. This is added in the part of material and method, page 3, paragraph 1.

Section Material and Methods, Page 3, Paragraph 1

Before the pyrolysis process, biomass samples were mixed with KOH in the mass ratio of KOH and carbon powder of 1:3.5

Ulasan 4: *The English grammar is poor throughout the manuscript, please carefully rewrite with emphasis on fixing the tense and spelling. [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340].*

Authors' Response:

We thank reviewer for the carefully reading. We apologize for the mistakes. Accordingly, we have corrected typing mistakes and improved the wordings across the revised manuscript. We also have proofreading our manuscripts to official institutions and it has been certified. Hopefully, the revised manuscript is found to be more convenient to read.

Ulasan 5: *Few sentences like "the porous activated carbon shows the presence of demonstrates ....." "These involve, firstly, the preparation of activated carbon precursor....." "and the curves generated for each treatment at the constant scan rate of 1 mV/s was....." should be modified. [Artikel terbit: International Journal of Energy Research, 44 (13) 2020, 1-14].*

Authors' Response:

We apologize for the mistake. We are truly grateful for the reviewer careful reading and correction to the manuscript. We have modified these sentences as following:

Section Introduction, Page 3, Paragraph 3

"The optimized sample of porous activated carbon was found in 0.3 M $ZnCl_2$, ~~shows the presence of demonstrates~~obtaining a nanosheet/nanofiber structure, which ensures improved specific capacitance ~~at a 0.3 M concentration~~"

Section Materials and Methods, sub-section Electrode Preparation, Page 4, Paragraph 1

~~These involve, firstly~~Firstly, ~~the preparation~~ precursors of activated carbon ~~precursor~~ were preparedfrom GSC biomass(a), which were collected from Riau province, Indonesia. Then, they ~~it~~ were~~as~~cut into a size of ±3cm,and followed dehydration by sun drying and heating in ovenat a temperature of 110°C for 2 days.

Section Results and Discussion, sub-section Electrochemical performance, Page 14, Paragraph 1

"the CV curves ~~generated~~ for ~~each treatment~~GSC samples at ~~the~~ aconstant scan rate of 1 mV/s was depicted"

Ulasan 6: *Please correct the unread unit in the sentence:*
Fig. 4 shows the X-ray diffractogram of HBP-s crystalline structure, and two broad peaks were obtained at scattering angles (2q□, precisely 24-25° and 44-46°, reflecting the typical amorphous carbon planes of 002 and 100, respectively. . [Artikel terbit: Communications in Science and Technology, 5 (1) 2020, 22-30].

Authors' Response:
We apologize for the mistake, and we thank for the reviewer carefully reading and correction to the manuscript. We have replaced the unread unit from 2q□ to 2θ.

Ulasan 7: *In Chapter 2.1, please indicate the activation chemical name in the preparation part. [Artikel: Journal of Chemical Technology & Biotechnology, 96 (13) 2021, 662-671].*

Author's response:
We thank reviewer for the constructive suggestion. We apologize for the mistakes. Accordingly, we have corrected typing mistakes and improved the wordings across the revised manuscript. Hopefully, the revised manuscript is found to be more convenient to read.

Ulasan 8: *They are misusing of upper and lower cases in the manuscript, for example, in page 9 line 38, Zinc Chloride should not be capitalized. [Artikel: Journal of Chemical Technology & Biotechnology, 96 (13) 2021, 662-671]*

Author's response:
We thank reviewer for the carefully reading. We apologize for the mistakes. Accordingly, we have corrected typing mistakes and improved the wordings across the revised manuscript. Hopefully, the revised manuscript is found to be more convenient to read.

Ulasan 9: *In Table 5, the capacitance of 213 F g^{-1} corresponds to the $ZnCl_2$ activation. Please revise. [Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480].*

Authors' Response:

We appreciate and thank the reviewer for the very constructive comments in this manuscript. We apologize for our mistakes. We are revised and modified the Table 5 overall. All revised are remarks with yellow highlight background.

Ulaasn 10: *Some minor grammatical mistakes should be checked carefully. [Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480].*

Authors' Response:

We appreciate and thank the reviewer for the very constructive comments in this manuscript. We apologize for our mistakes. We are revised and modified the unclear expressions and misspellings in this paper overall. We also have corrected typing mistakes and improved the wordings across the revised manuscript. We also have proofreading our manuscripts to official institutions and it has been certified. All revised are remarks with yellow highlight background. Hopefully, the revised manuscript is found to be more convenient to read.

Ulasan 11: *The English of the paper needs to be improved by native or expert. Wordings problem is the major issue in this paper. For example in the abstract "Two different activator agents (KOH and ZnCl2 are the purposes of work." What does the author want to say?*

This is only one example, there are a lot of such cases in the entire paper. [Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480].

Authors' Response:

We appreciate and thank the reviewer for the very constructive comments in this manuscript. We apologize for our mistakes. We are revised and modified the unclear expressions and misspellings in this paper overall. We also have corrected typing mistakes and improved the wordings across the revised manuscript. We also have proofreading our manuscripts to official institutions and it

has been certified. All revised are remarks with yellow highlight background. Hopefully, the revised manuscript is found to be more convenient to read.

Ulaasan 12: *To some extent I feel the English language needs improvement. Please cross-check it with the help of a reliable English speaker. [Artikel terbit: Adv. Nat. Sci.: Nanosci. Nanotechnol. 12 (2021) 035013 (9pp)].*

Authors' Response:

We appreciate and thank the reviewer for the very constructive comments in this manuscript. Accordingly, we have corrected typing mistakes and improved the wordings across the revised manuscript. We also have proofreading our manuscripts to official institutions and it has been certified. Hopefully, the revised manuscript is found to be more convenient to read.

2. Komentar pengulas dan respon penulis pada rekomendasi referensi tambahan

Komentar dan ulasan mengenai tambahan eferensi sangat sering dijumpai pada naskah yang ditinjau. Biasanya pengulas merekoemdasikan beberapa referensi terbaru yang dianggap sesuai. Namun demikian, sering diantara mereka merekoendasikan artikel mereka sendiri agar sitasi artikel yang bertambah. Respon kita sebagai penulis dapat bertindak secara mandiri dan independen terhadap rekomendasi tersebut. Jika dianggap relevan, refernsi tambahan silakan disisipkan pada naskah perbaikan, namun jika tidak penulis dapat mengabaikannya dan memberikana alasan yang logis. Pada bagian ini disajikan beberapa komentar pengulas dan respon penulis mengenai rekoemndasi referensi tambahan pada artikel ilmiah internasional dalam bidang superkapasitor berbasis limbah biomassa.

Ulasan 1: *Some relevant papers about biomass carbon might be referred in this manuscript, such as Adv. Funct. Mater, DOI: 10.1002/adfm.202002580, Carbon, 2019,149,105, ACS Appl. Mater. Interfaces, 2019, 11, 30360-30367. [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340].*

Authors' Response:

We thank the reviewer for the comment. These relevant papers have been added in the manuscript. The references numbers are 12, 15, and 34.

Ulasan 2: *The presented data are reasonable/standard data in similar research. In addition, it is not very general and deep comparisons. More comments on this point are helpful, perhaps previously reported papersshould be cited as the refs.*
Related papers have been reported by different research groups. It is better to cite the following refs to support some related paragraphs in the introduction part. Nanostrcutured metal oxides (e.g., Nano Energy 67, 104270, 2020; Bull ChemSocJpn 2020, 93, 176; Journal of Power Sources 227, 153, 2013, etc.) and MOF-derived carbons (Scientific Reports volume 6, Article number: 30295 (2016)) have been recently reported by different groups.
Metal–organic frameworks (MOFs) are concerned as potential materials for preparing functional carbons (AngewChemInt Ed 59, 2066, 2020; Sci Rep 6, 30295, 2016; J. Mater. Chem. A 5, 15356, 2017, Chem, 6, 19-40 (2020), etc.). Recently, various shaped Prussian blue (Bull ChemSocJpn, 2019, 92, 875) has been also demonstrated under different conditions. It is better to address these recent works in the introduction part. [Artikel terbit: International Journal of Energy Research, 44 (13) 2020, 1-14].

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have mentioned the related papers in the introduction part. However, we can't add all the suggested papers in the introduction part. We only add two papers (e.g., Nano Energy 67, 104270, 2020 and Bull Chem. Soc. Jpn. 2020, 93, 176) that are considered relevant in our introduction.

Authors have synthesized activated carbon employing zinc chloride as activating agent. In table 4, they have compared their results with reported literature. It would be better if they also mention the electrolyte and compare their results with activated carbon synthesized using zinc chloride. Some suggestions are: J. Saudi Chemical Society 2018 22:993-1002, J. Energy Storage 2019 26:100988, Surface and Coatings Technology 2018 349:242-50,

Materials Research Express. 2018 5(4):045601. [Artikel terbit: International Journal of Energy Research, 44 (13) 2020, 1-14].

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have mentioned the electrolyte used in the references study and added some new references that study activated carbon using zinc chloride.

Ulasan 4: *The authors are encouraged to introduce more recent references about supercapacitors in the introduction section: From basil seed to flexible supercapacitors: Green synthesis of heteroatom-enriched porous carbon by self-gelation strategy, INTERNATIONAL JOURNAL OF ENERGY RESEARCH, 2020, 44:4449-4463; Construction of nickel cobalt sulfide nanosheet arrays on carbon cloth for performance-enhanced supercapacitor, JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY, 2020, 47:113-121. [Artikel: Journal of Chemical Technology & Biotechnology, 96 (13) 2021, 662-671].*

Author's response:

We appreciate the reviewer for very constructive suggestion. We have mentioned the related papers in the introduction part. However, we can't add all the suggested papers in the introduction part. We only add one papers: From basil seed to flexible supercapacitors: Green synthesis of heteroatom-enriched porous carbon by self-gelation strategy, INTERNATIONAL JOURNAL OF ENERGY RESEARCH, 2020, 44:4449-4463 that are considered relevant in our introduction.

Introduction part, paragraph 3

The resulting material possessed a surface area of 2623 m^2 g^{-1}, with excellent specific capacitance of 357 F g^{-1}. Also, similar results were shown by pitaya waste and basil seed produced using KOH activation, presenting with a surface area of 1178.3-1870 m^2 g^{-1}, and specific capacitance of 255-464 F g^{-1} [21,22].

Ulasan 5: *Some recent references should be cited. [Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have been added several recent articles in introduction part and result and discussion part. Furthermore we also modified the introduction part with several recent references cited, especially in paragraph 2, paragraph 3, and paragraph 4, with yellow highlight background. The several recent references such as Electrochim. Acta. 2020;331: 135348; J. Mater. Res. Technol. 2020;9:13332–13340.; Nanotechnology. 2019;30; J. Electroanal. Chem. 2020;877:114656; J. Energy Storage. 2020;32:101908.

Ulasan 6: *Some recent references on different electrode materials for supercapacitors (such as ChemSusChem 11, 3546-3558 (2018); J. Mater. Chem. A, 9, 4528-4557 (2021); Chemical Engineering Journal, 388, 124319 (2020) and ACS Applied Energy Materials 1, 2007-2015 (2020)) and different applications of template derived carbons (such as ACS Sustainable Chem. Eng. 2020, 8, 6458–6465; Chemical Engineering Journal 396, 125154 (2020); ACS Sustainable Chem. Eng. 2020, 8, 10230–10241 and Journal of Materials Chemistry A, 7, 1380-1393, 2019) can be mentioned and cited in the Introduction. [Artikel terbit: Adv. Nat. Sci.: Nanosci. Nanotechnol. 12 (2021) 035013 (9pp)].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have mentioned and added the correlated references which suggest of reviewer in the introduction part.

Ulasan 7: *Few recently published graphene-related articles like 1. Nano Research 12 (11), 2655-2694, 2019; 2. Progress in Energy and Combustion Science 75, 100786, 2019; 3. Materials Today, 39, 47-65 2020, 4. Journal of Science: Advanced Materials and Devices 5, 1 (2020): 10-29 should be cited in the introduction part of the manuscript. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have mentioned and added the recently published which suggest of reviewers in the introduction part, referees 5,10, and 11.

Ulasan 8: *The following articles that are closely related to this topic should be added for references: Carbon 147 (2019): 540-549. Energy Storage Materials 18 (2019): 447-455. Advanced energy materials 7.21 (2017): 1700592. [Artikel terbit: ChemNanoMat, 8 (2) 2022, e202100388]*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have been added several recent articles in our manuscript especially ref. 70-85.

3. Komentar pengulas dan respon penulis pada tabel dan gambar

Komentar dan ulasan pada tabel dan gambar biasanya juga sering dijumpai. Perbaikan dan revisi tabel dan gambar dikaitkan dengan pedoman penulisan jurnal yang bersangkutan. Beberapa komentar dan ulasan mengenai perbaikan tabel dan gambar di muat pada sub bagian ini, sebagaimana ditampilkan berikut ini.

Ulasan 1: *From the Figure 7b, 7c and 7d, the CV curve at high scan rate indicated that the Voltage window is out of place. Please correct.*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We apologize for our mistakes. We have been modified and corrected the CV curve at high scan rate in Figure 7b, 7c, and 7d. All revision can be seen in the manuscript.

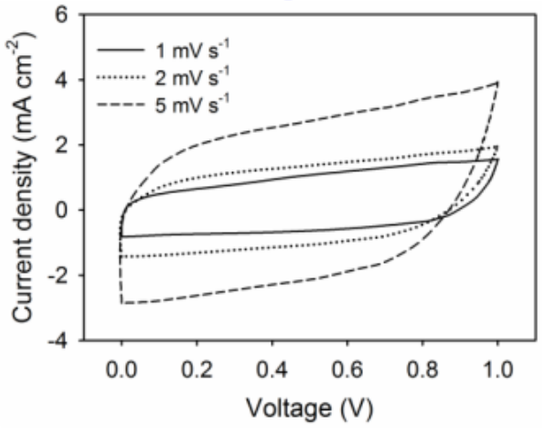


Figure 7b

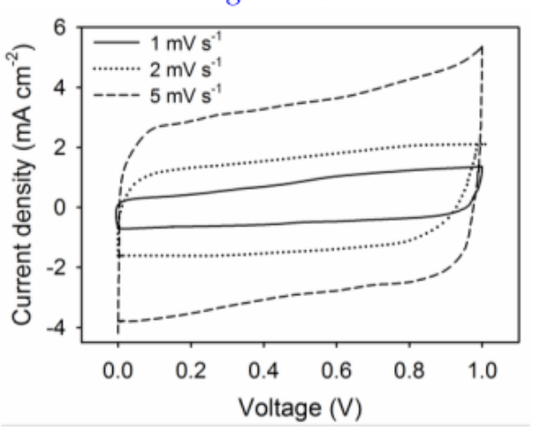


Figure 7c

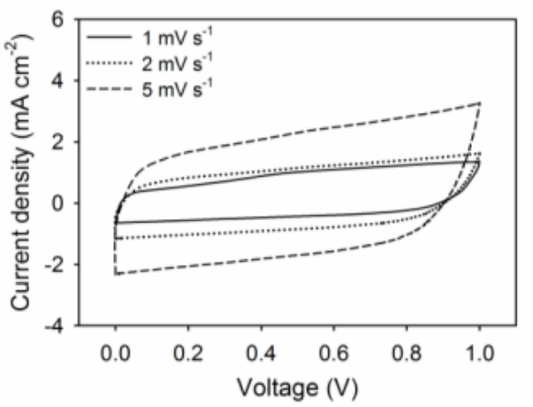


Figure 7d

Ulasan 2: *The necessary mark of bands in FTIR spectra in Figure 6 should be done.*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have been marked of bands in FTIR spectra in Figure 6. This is can be seen in Figure 6 in manuscript revised.

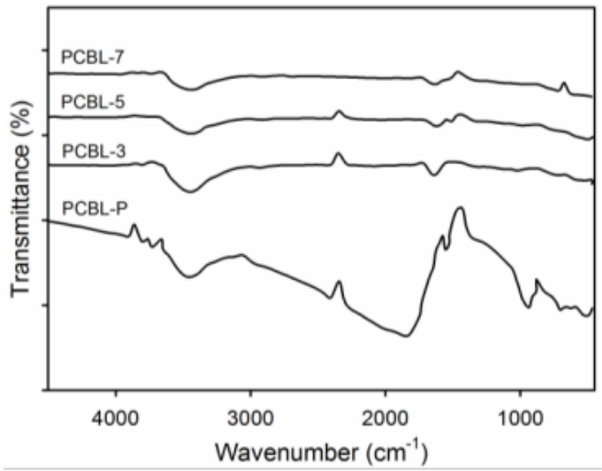


Figure 6 (original manucript)

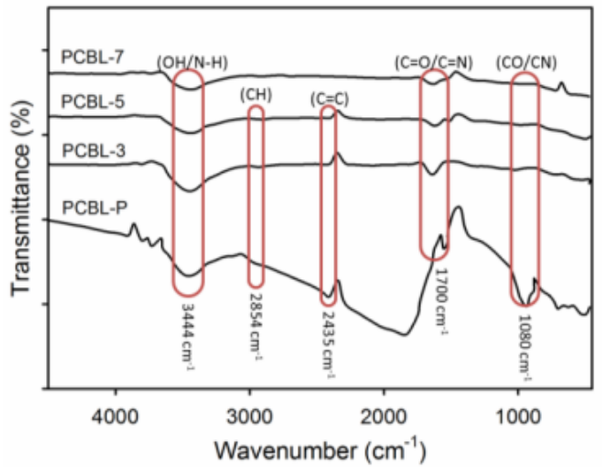
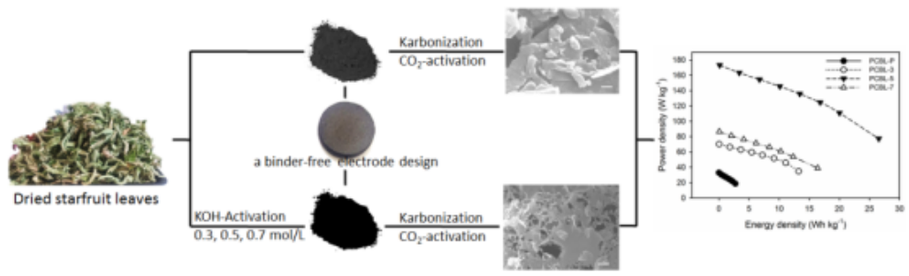


Figure 6 (revised manuscript)

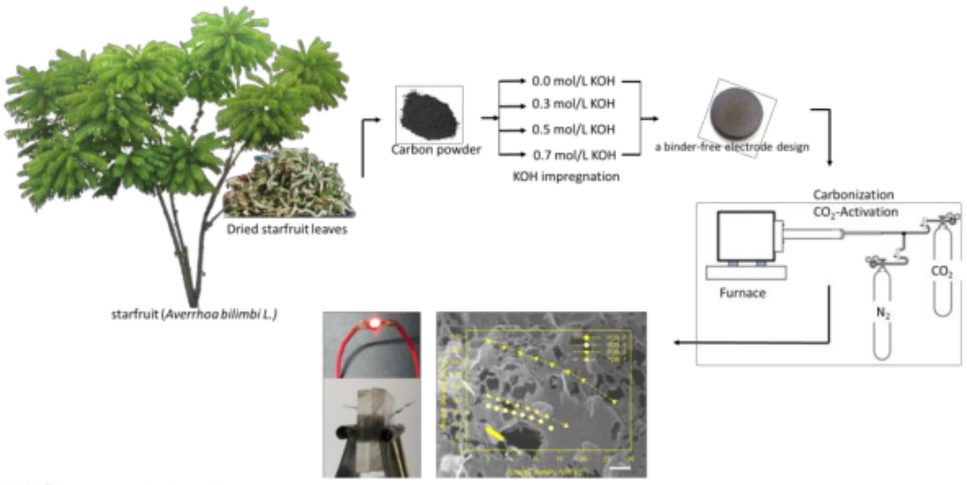
Ulasan 3: *The scheme 1 should be improved*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. The scheme 1 has been improved and modified in the manuscript. We hope that the improved scheme 1 is in accordance with the reviewer's want.



(Before revision)



(After revision)

Ulasan 4: *For Table 4, it is better to compare the electrochemical performance under the same test conditions. The results from two coin device and three electrode system are different. So the authors should revise this table. New derived carbon on Journal of Energy Storage 35 (2021) 102287 maybe compared.*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have been modified and fixed the Table 4 as according to reviewer comment. We have been deleted the three electrode system and all precursor was under the same condition (two electrode configuration). We also added the Journal of Energy Storage 35 (2021) 102287 as compared precursor in the Table 4, referee [75]. We added in yellow highlight background.

Before revision

Sources	Electrolyte	Electrode type	C_{sp} (F g^{-1})	E (Wh kg^{-1})	P (W kg^{-1})	Ref
Jujube fruits	6 M KOH	Two-electrode	145.6	22.7	368	[19]
Watermelon	6 M KOH	Two-electrode	171	19.1	180	[20]
Parthenium hysterophorous	1 M H_2SO_4	Three-electrode	270	-	-	[22]
Kapok flower	6 M KOH	Three-electrode	286	-	-	[23]
Pecan shell	6 M KOH	Three-electrode	447	15.1	-	[24]
Honeysuckle flowers	EmimBF4	Three-electrode	186	93	954	[25]
Averrhoa bilimbi leaf	1 M Na_2SO_4	Two-electrode	149	10.50	116.35	[27]
Garlic peels	4 M KOH	Three-electrode	174	32.6	108	[49]
Native European deciduous trees	1 M H_2SO_4	Three-electrode	24	0.53	50	[61]
PCBL-5	1 M H_2SO_4	Two-electrode	293	26.54	178.44	This work

After revision

Sources	Electrolyte	Electrode type	C_{sp} (F g^{-1})	E (Wh kg^{-1})	P (W kg^{-1})	Ref
Jujube fruits	6 M KOH	Two-electrode	145.6	22.7	368	[19]
Jujube fruits	1 M Et4NBF4/AN	Two-electrode	54.7	23.7	629	[19]
Watermelon	1 M H_2SO_4	Two-electrode	226	25.4	180	[20]
Watermelon	6 M KOH	Two-electrode	171	19.1	180	[20]
Averrhoa bilimbi leaf	1 M Na_2SO_4	Two-electrode	149	10.50	116.35	[27]
Feather finger grass flower	6 M KOH	Two-electrode	120	18.75	370	[75]
PCBL-5	1 M H_2SO_4	Two-electrode	293	26.54	178.44	This work

4. Komentar pengulas dan respon penulis pada struktur kalimat dan penejesan isi naskah

Sub bagian ini berisi tentang kumpulan ulasan dan respon tentang peruabahan struktur kalimat dan penjelasan detail yang diminta pada bagain-bagian naskah meliputi abstrak/keterbaharuan, pendahuluan, metode penelitian, hasil dan pembahasan, dan kesimpulan. Diharapkan bahwa, sub bagian ini dapat memberikan gambaran bagaimana cara merespon dengan baik jika struktur dan isi naskah dikementari oleh pengulas.

Ulasan pada abstrak/keterbaharuan 1: *What is the novelty in this current article as so many paper related to similar to this work reported excellent electrochemical properties when compared to what is in this paper. For example " 1. Preparation of Hierarchical Porous Activated Carbon from Banana Leaves for High-performance Supercapacitor: Effect of Type of Electrolytes on Performance. https://doi.org/10.1002/asia.202001342. 2. Supercapacitors from Activated Carbon Derived from Banana Fibers J. Phys. Chem. C 2007, 111, 20, 7527-7531. [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We thank the reviewer for the comment. However, we tried to presenting our best performance to exhibit a good scientific paper. Also we have tried to fulfill all the reviewers' comments. In this paper, we try to obtain something new in this research. In this work, we report the hierarchical porous carbon derived from banana leaves on several points that are different from those mostly reported, particularly in literature 1.

- Hierarchical porous carbon is synthesized simply a coin solid with a free-binder design without the addition of an adhesive material such as PVP so that the capacitance obtained is the real value of the carbon material itself.

- The separator used is an organic separator.

- Although the surface area is relatively low, the sample can produce higher capacitance compared to literature 1. This is indicated that the surface area of the sample and the developing pores can be accessed as a whole by the electrolyte ions.

- Furthermore, the work of literature 2 is clearly different from our report because literature 2 uses banana stem as the raw material of porous carbon. In addition, the obtained electrochemical values are relatively lower than this work.

Ulasan pada abstrak/keterbaharuan 2: *Because the performance of the obtained sample is not comparable to the best electrodes as in the ref [47], [59] and [62], what is the motive of the study using this biomass sample? Discussion in the point of view the special structure and chemical and electrical properties is required. Special materials properties is necessary for motive of the study to avoid a traditional routine of simply changing the biomass source.*
[Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480]

Authors' Response:

We appreciate the reviewer for very constructive suggestion. In this study, the results obtained are actually not so low compared to references [47], [59], and [62]. If we look closely, the energy density produced in this study is much higher than the reference [47], [59], and [62]. Furthermore, the resulting energy density of the optimum sample in this study was two times higher than that of the reference [59]. Although the reported power density is lower than the reference [47], [59], and [62]. The high power density they produce is due to the use of 1M L iClO4 organic electrolyte, as we know, the use of this organic electrolytes is relatively expensive and toxic thus limiting their wider application. In this study, we used an aqueous electrolyte of 1M H_2SO_4 which is more environmentally friendly and low cost but can produce higher energy than references [47] and [59].

Moreover, as well known, the energy density of supercapacitors is very unbalanced compared to their high power density. Energy density of supercapacitors only ranges from 1-10 Wh kg^{-1} while their power density reaches 500-10,000 W kg^{-1}. This is a challenge for researchers. To balance their high power density with their energy density, the researchers claim that the electrode material must have a 3D hierarchical pore specification with a combination of mico, meso and macropores. The properties of this material can

be found in biomass precursors. In this study, we modified the nanostructure of the porous carbon-based on biomass especially PJs. These results are in accordance with the initial objectives of the study which were stated in the introduction part, paragraph 2 and 3, with a yellow highlight background. The high energy density that has been produced in this study due to the nature of the sample material which has a nanosheet and hollow-nanofiber structure allows the development of a hierarchical pore structure with a combination of micro, meso, and macropores. Each of these pores contributes to enhancing the high performance of the supercapacitor as discussed in the introduction. This statement has also been added to the analysis of material properties, especially the analysis of surface morphology, porosity properties and analysis of electrochemical properties, especially subsection 3.3. Electrochemical performances, paragraph 3, with yellow highlight background.

Ulasan pendahuluan 1: *The introduction of biomass-based porous carbon materials for supercapacitors are not complete, some related articles need to be compared and analyzed. [Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have been added several related articles in introduction part. Furthermore we also modified the introduction part with several recent references cited, especially in paragraph 2, paragraph 3, and paragraph 4, with yellow highlight background.

Ulasan pendahuluan 2: *The Introduction part does not show a clear motive and objective of the study. Highlighting the novelty of the work is necessary. [Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480].*

Authors' Response:

We appreciate and thank the reviewer for the very constructive comments in this manuscript. We have been added and modified the introduction part with clear motive and objective of the study, especially in paragraph 2, paragraph 3, and paragraph 4, with yellow highlight background. Moreover, the innovations, novelty

and highlight that we offer are a relatively time-saving approach strategy, simple approach, without conducting polymer, metal oxide or metal framework technique, a binder-free pellet design to produce porous carbon nanofiber and nanosheet derived from biomass which has resulted in outstanding electrochemical properties with a specific capacitance of up to 213 F g^{-1}. To the best of our knowledge, only few biomass-based porous carbon preparation methods/techniques without the addition of polymeric materials/metal oxides, etc. could produce hollow carbon nanofiber-nanosheet with high specific capacitance. By chemical impregnation of low concentration KOH-$ZnCl_2$ and binder-free solid design, we produced a hollow carbon nanofiber/nanosheet biomass-based as electrode material for supercapacitor application.

Ulasan pendahuluan 3: *The last paragraph in introduction should be modified to focus on the objective of the study instead of results. Put your significant results in abstract and conclusion. [Artikel terbit: Communications in Science and Technology, 5 (1) 2020, 22-30].*

Authors' Response:

We appreciate and thank for the reviewer for very constructive suggestion. We have modified the last paragraph for the objective of this study, and we also have mentioned the significant results in the section of abstract and conclusion, as following as;

Section Introduction, Page 1

"Therefore, in this study, we report on the synthesis of activated carbon from hierarchically bamboo stem in the monolithic form, to be used as binder free electrode for supercapacitor application. The raw material was first treated in two step carbonizations, followed by chemical activation using different concentrations (1 M and 3 M) of potassium hydroxide (KOH). Then, structure characterization to activated carbon monolithic were done using a scanning electron microscopy (SEM), N_2 gas sorption, X-ray diffraction (XRD), and energy X-ray (EDX). Furthermore, the electrochemical performance was then tested, using cyclic voltammetry (CV) in 1 M H_2SO_4 electrolyte, assembled in two electrode system. The effect of chemical activation of activated

carbon monolithic on their density will also be discussed in detail. The effect of electrode thickness on their electrochemical performance also will be discussed in this study. "

Section Abstract, Page 1

"The result shows the significant impact of the three-dimensional structure on electrochemical performance, and the optimized sample exhibited specific capacitance of 168.8 F g^{-1}, energy density of 23.44 Wh kg^{-1}, and power density of 84.46 W kg^{-1}. "

Section Conclusion, Page 7

"Furthermore, samples activated with 3 M KOH showed better electrochemical performance than those produced with 1 M KOH activation in 1 M H_2SO_4 electrolyte, characterized by the highest specific capacitance of 168.8 F g^{-1}, energy and power density of 23.44 Wh kg^{-1} and 84.46 W kg^{-1}, respectively, despite the low specific surface area of 154.6 m^2 g^{-1}. The activated carbon monolithic obtained a three-dimensional pore structure with a flake, resulting in better electrical conductivity, while the high oxygen content causes an increase in wettability, needed for better ion adsorption in the aqueous electrolyte."

Ulasan metode penelitian 1: *The paper explained in detail the carbon powder derived from coconut coir fiber for supercapacitor application. The method to calculate energy specific and power specific should be added in material and method. [Artikel terbit: Journal of Metastable and Nanocrystalline Materials, 33 (2021) 2021, 1-11].*

Author's response:

We thank the reviewer for very constructive suggestion. The method to calculate energy specific and power specific has been added in the material and method, page 3.

Material and method, page 3.

The specific capacitance, energi density and power density are obtained from the standard equation [14,15].

$$C_{sp} = \frac{I}{s \times m} \qquad (1)$$

$$I = \frac{2(Ic - Id)}{2} \qquad (2)$$

$$E = \frac{1}{2} C_{sp} V^2 \frac{1}{3.6} \quad (3)$$

$$P = \frac{E}{\Delta t} \times 3600 \quad (4)$$

I_c and I_d are the charge and discharge of current density (A cm^{-2}), m is mass loading of electrodes (g) s is scan rate of CV (mV s^{-1}) and, V is voltage (V) and Δt is time of discharge (s).

Ulasan metode penelitian 2: *In experimental part, details about the electrode preparation should be provided. [Artikel: Journal of Chemical Technology & Biotechnology, 96 (13) 2021, 662-671].*

Author's response:

We thank reviewer for the constructive suggestion. Detail electrode preparation has been added in the manuscript, experiment part, the electrochemical measurement subsection, paragraph 1.

Experiment part, the electrochemical measurement subsection, paragraph 1.

The supercapacitor cell was assembled by the sandwich type which consists of the two-electrodes free binderless, a separator from egg duck shell membrane and 1 M H_2SO_4 electrolyte in the two-electrode system. The electrodes were prepared by polished the carbon monolith CPs which had been pyrolyzed to a certain thickness of 0.2 mm and placed in two pieces without binder materials.

Ulasan hasil dan pembahasan 1: *As chemical activator, the analysis of the effect of ZnCl2 on porous carbon is not clear and the mechanism of how to efficiently generate heteroatoms is poorly formulated. The authors need to add more comments on this. [Artikel terbit: ChemNanoMat, 8 (2) 2022, e202100388].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. We have been added the analysis of the effect of ZnCl2 on porous carbon precursor and how it efficiently generate heteroatom. This is discussed and added in the result and discussion part, density analysis (page 3) SEM analysis (page 4), FTIR analysis (Page 4), and EDS analysis (page 5), we remark it wit yellow highlight background.

Result and discussion part, density analysis (page 3)

Furthermore, $ZnCl_2$ served as a dehydrating agent to disintegrate the H and O chains in the functional groups fewer than 700 °C [34]. This resulted in a decreased density from BL700 to ABL700 by approximately 32.8%. However, the $ZnCl_2$ is assumed very effective at temperatures below 500 °C, and in subsequent reaction with carbon, hydrated zinc chloride ($ZnCl_2 \cdot nH_2O$) was formed [39,40]. Increasing heat effect tends to hydrolyze $ZnCl_2 \cdot nH_2O$ and produce oxychloride.

Result and discussion part, SEM analysis (page 4)

During pyrolysis at 700°C, zinc chloride reacted directly with the entire carbon matrix. Oxychloride was formed as a by-product at low temperatures, as the inert gas was discharged, leaving behind a porous carbon framework interspersed with zinc oxide [47]. In addition, increasing the heat to 800°C simultaneously evaporated zinc oxide and other impurities [40]. This situation unexpectedly confirmed the combination of hierarchically linked macro-pores and mesopores, as represented on ABL800 SEM micrograph (Fig. 2(b)), with various magnifications. The resulting….

Result and discussion part, FTIR analysis (Page 4)

The chemical reaction of $ZnCl_2$ with precursor carbon at high-temperature pyrolysis can hydrolyze $ZnCl_2 \cdot nH2O$ and produce oxychloride (ZnOCl). Increasing the pyrolysis temperature from 700 °C to 900 °C allows the production of more ZnOCl due to their interaction with CO_2 gas. Evaporation of Zn due to high temperature can etch the carbon matrix chains thereby initiating the formation of a 3D pore structure, as confirmed by SEM micrograph. Rich-free oxygen is left behind to bind to the activated carbon in the matrix. Thus, the sample is significantly affected by the heteroatom effect, as confirmed in FTIR spectrum (–OH and C–OH hydroxyl groups). In addition, the functional groups of CC, and C–C occurred at the peak of 2330 cm^{-1} and 702 cm^{-1}, and strongly confirmed the $ZnCl_2$ impregnated samples at high temperature, as the entire materials were dominated with high carbon content [53]. This analysis is also relevant to the EDS characterization further discussed.

Result and discussion part, EDS analysis (page 5)

Additionally, oxygen, as the second-highest element, contributes in a different way. $ZnCl_2$ impregnation at high temperatures of 700 to

900 C significantly enriches elemental oxygen. This is due to the formation of high oxychloride compounds accompanied by evaporation of Zn due to high temperatures, which results in high oxygen contributed to oxide compounds. The carbon precursor will also benefit from increased wettability as well as surface hydrophilicity and pseudo-capacitive properties [58,59]. *This circumstance was also confirmed in the...*

Ulasan hasil dan pembahasan 2: *In the preparation of porous carbon, the authors chose CO_2 atmosphere for its pyrolysis at different temperatures. So what is the role of CO_2? [Artikel terbit: ChemNanoMat, 8 (2) 2022, e202100388].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. The activation step is the second phase of the physical activation process and it is achieved by reacting steam, gas, or mixture of steam and gas (O_2 and CO_2) with the carbonized char. The activation process serves as a mechanism that optimizes the initial surface area, remove the tar deposits on the initial pores, develop new pores as a result of the oxidizing gas penetrating the char surfaces and optimize the textural properties or the final carbon. Based on experimental results, most researchers agreed that CO_2 is a better candidate as an oxidizing agent in the activation process because it is clean, less reactive at high temperature which ensures adequate controllability and produces more appreciable results. In this study, the effect of physical activation CO_2 has been explained and added in this manuscript, especially in result and discussion part, subsection density, crystallinity properties, morphological features.

Ulasan hasil dan pembahasan 3: *Activation of porous carbon using $ZnCl_2$ has been reported before, what are the advantages of this paper over other literature? [Artikel terbit: ChemNanoMat, 8 (2) 2022, e202100388].*

Authors' Response:

We appreciate and thank the reviewer for the very constructive comments in this manuscript. We tried to presenting our best performance to exhibit a good scientific paper. Also we have tried

to fulfill all the reviewers' comments. In this paper, we try to obtain something new in this research. In this work, porous activated carbon in the form of a binder-free coin monolith was prepared by activation of $ZnCl_2$ in a concentration of 0.5 M. In detail, the amount of $ZnCl_2$ impregnated in carbon samples was relatively low compared to other literature. However, the advantage of this method is that we can produce chemically activated carbon in the form of a binder-free coin monolith. In another literature, they prepared activated carbon through chemical activation of $ZnCl_2$ with relatively higher amounts of $ZnCl_2$ than the precursor carbon powder. The disadvantage of this process is that the resulting sample no longer has self-adhesive properties so it requires the addition of binders such as PVA, PVP, PTFE, and PVDF to test the electrochemical properties. The binder can certainly reduce the electrochemical properties of the sample and produce a relatively large internal resistance. In our study, the self-adhesiveness was maintained in the $ZnCl_2$ impregnation and it could significantly exhibit high electrochemical properties with very low internal resistance.

Ulasan hasil dan pembahasan 4: *On page 4, how does the addition of $ZnCl_2$ results in additional polar group on the porous carbon. [Artikel terbit: ChemNanoMat, 8 (2) 2022, e202100388].*

Authors' Response:

We appreciate and thank the reviewer for the very constructive comments in this manuscript. In our study, $ZnCl_2$ impregnation on biomass-based carbon precursors can significantly add polar groups to the sample. This is due to the reaction of $ZnCl_2$ with carbon precursor samples. The chemical reaction of $ZnCl_2$ with precursor carbon at high-temperature pyrolysis can hydrolyze $ZnCl_2 \cdot nH_2O$ and produce oxychloride (ZnOCl). Increasing the pyrolysis temperature from 700 °C to 900 °C allows the production of more ZnOCl due to their interaction with CO_2 gas. Evaporation of Zn due to high temperature can etch the carbon matrix chains thereby initiating the formation of a 3D pore structure, as confirmed by SEM micrograph. Rich-free oxygen is left behind to bind to the activated carbon in the matrix. Thus, the sample is significantly affected by the heteroatom effect, as confirmed in

FTIR spectrum (–OH and C–OH hydroxyl groups). This analysis has been added in the result and discussion part, page 4, with yellow highlight background.

Result and discussion part, FTIR analysis (Page 4)

The chemical reaction of $ZnCl_2$ with precursor carbon at high-temperature pyrolysis can hydrolyze $ZnCl_2{\cdot}nH2O$ and produce oxychloride (ZnOCl). Increasing the pyrolysis temperature from 700 °C to 900 °C allows the production of more ZnOCl due to their interaction with CO_2 gas. Evaporation of Zn due to high temperature can etch the carbon matrix chains thereby initiating the formation of a 3D pore structure, as confirmed by SEM micrograph. Rich-free oxygen is left behind to bind to the activated carbon in the matrix. Thus, the sample is significantly affected by the heteroatom effect, as confirmed in FTIR spectrum (–OH and C–OH hydroxyl groups). In addition, the functional groups of CC, and C–C occurred at the peak of 2330 cm^{-1} and 702 cm^{-1}, and strongly confirmed the $ZnCl_2$ impregnated samples at high temperature, as the entire materials were dominated with high carbon content [53]. This analysis is also relevant to the EDS characterization further discussed.

Ulasan hasil dan pembahasan 5: *From table 5, why the capacitance in the sample treated with $ZnCl_2$ is higher than the one treated in KOH. The BET surface area is much higher in KOH treated sample. [Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. Although $0.5ZnCl_2$ does not have the highest specific surface area (688.298 m^2 g^{-1}), it has the highest capacitive properties compared to 0.7KOH. This is due to a hierarchically connected nanopores structure with a micro/meso volume ratio that is relatively three times larger could significantly improve a relatively better ion transport pathway with the possibility of a more effective electric double layer being formed, as shown in Figure 7(c) [52,53]. Moreover, the addition of pore diameters allows for better transfer and diffusion of ion, leading to high capacity performances. High specific capacitance does not only depend on high surface area

and high micropores volume but a good combination of micro-, and mesopores on carbon electrodes are the important point to increase the specific capacitance 54. Micropores allow more electrolyte ions to form a charge layer at the electrode/electrolyte interface and produce a high energy density while the mesopores provide sufficient space for the better transfer and diffusion ions at the electrode carbon porous to produce high power densities 55. This phenomenon certainly results in high specific capacitance at the carbon electrode. Based on these results it can be concluded that the performance of supercapacitors is not necessarily affected absolutely by high surface area. These statements have been added in the result and discussion part, subsection 3.3 Electrochemical performances, paragraph 3, with yellow highlight background.

Ulasan hasil dan pembahasan 6: *A manuscript contains two important parts. First is the experimental work and then its presentation part. In my opinion here the presentation part is not good. [Artikel terbit: International Journal of Energy Research, 44 (13) 2020, 1-14].*

Authors' Response:

We appreciate thank the reviewer for the comment. However, we can't change the manuscript as a whole because the reviewer does not provide a specific part to be corrected.

Ulasan hasil dan pembahasan 6: *How much of the yields of Syzygium oleana leaves at different carbonization temperature and activation temperature? [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340]*

Authors' Response:

We thank the reviewer for the comment. In this experiment, the processes of carbonization and physical activation carried out in one-stage integrated pyrolysis, which mean the carbonization and physical activation is run in one way in furnace tube. It start with carbonization from room temperature to 500, 600, and °C in N_2 gas atmosphere and it continued until high temperature of 900 °C in CO2 then, the temperature is continuously increased and N_2 gas is exchanged with CO2 as a physical activation process. This similar method has also reported such as Int. J. Electrochem. Sci.,

14 (2019) 1318 – 1330, doi: 10.20964/2019.02.67. Adv. Nat. Sci.: Nanosci. Nanotechnol. (2020) https://doi.org/10.1088/2043-6254/ab8b60. The yields of carbon monolith before and after one-stage integrated pyrolysis for three different carbonization temperatures are 38.29%, 19.85% and 14.28%. Higher carbonization temperatures were effect of the yields. This result is similar with other reports such as Journal of Cleaner Production 198 (2018) 1422–1430, and Bioresource Technology 102 (2011) 3645–3648.

Ulasan hasil dan pembahasan 7: *The mineral has affacted on the pore structure and apllication performance of porous carbon carbon or not? [Artikel terbit: Journal of Materials Research and Technology, 9 (6) 2020, 13332-13340].*

Authors' Response:

We thank the reviewer for the comment. Actually, the mineral elements, especially $CaCO_3$ and SiO_2, could reduce supercapacitor performance. These mineral elements fill the pores of the activated carbon so that the ion diffusion process on the electrode surface is not optimal, thereby reducing the capacitive properties of the electrode. An increase in carbonization temperature could reduce elements of $CaCO_3$ and SiO_2 so that electrode performance increases, this analysis has been added to the results and discussion.

Ulasan hasil dan pembahasan 8: *Why the device showed better electrochemical performance in 1M H_2SO_4 than 6M KOH? [Artikel terbit: Journal of Energy Storage, 40 2021, 102823].*

Authors' Response:

We thank the reviewer for the comment. The banana leaves-based carbon electrode's capacitive properties in the 1 M H_2SO_4 acid electrolyte were better than the 6 M KOH alkaline electrolyte. This is due to the five-fold higher ionic conductivity of H^+ 350.1 $cm^2\ \Omega^{-1}\ mol^{-1}$ compared to K^+ 73.5 $cm^2\ \Omega^{-1}\ mol^{-1}$, therefore, H^+ ions have the highest mobility capability that contributes to improving the performance of the electrode material [68,69]. This property also affects the cell resistance, wherein alkaline electrolyte was relatively higher by $26{\cdot}10^{-3}\ \Omega$ than the salt electrolyte of $15{\cdot}10^{-3}\ \Omega$ in the PAC-800. These statements were added in the results and discussions part, lines 443-449.

The results and discussions part, lines 443-449

The banana leaves-based carbon electrode's capacitive properties in the 1 M H_2SO_4 acid electrolyte were better than the 6 M KOH alkaline electrolyte. This is due to the five-fold higher ionic conductivity of H^+ 350.1 $cm^2\ \Omega^{-1}\ mol^{-1}$ compared to K^+ 73.5 $cm^2\ \Omega^{-1}\ mol^{-1}$, therefore, H^+ ions have the highest mobility capability that contributes to improving the performance of the electrode material [68,69].

Ulasan kesimpulan: *Overall the manuscript is well written, but I want to see the authors' perspective (future vision) on this research in the conclusion part. [Artikel terbit: International Journal of Energy Research, 44 (13) 2020, 1-14].*

Authors' Response:

We thank the reviewer for the comment. We have been added the authors' perspective (future vision) in last sentences in the conclusion part.

Ulasan lain-lain: *In Figures 5 a and b, it is shown that the surface area analysis using KOH and $ZnCl_2$. For KOH, the surface area increases with the increase of KOH and maximum at 0.7. The value drastically drops when 0.9KOH is used. Why the author did not check 0.75, 0.8???. [Artikel terbit: International Journal of Energy Research, 46 (2) 2022, 1467-1480].*

Authors' Response:

We appreciate the reviewer for very constructive suggestion. In this study, we focus on the effect of KOH-$ZnCl_2$ in different concentrations with the difference between them constant 0.2 M. In this case we found 0.7M is the optimum condition for KOH and 0.5M for $ZnCl_2$. To examine at concentrations of 0.75, 0.8 M KOH with a constant difference between them of 0.05 M was considered too low concentration to produce different material properties and electrochemical properties. If it is still done, it is assumed that they have a relatively similar value. However, this study requires intense research and it will certainly produce a new manuscript. We cannot cover this in the present study. We will make this comment as our next project. This is same as true for the case of $ZnCl_2$.

BAB 6 PENUTUP

Buku ini merupakan buku yang menyajikan informasi, panduan, dan tuntunan kepada pembaca khususnya pembaca yang berprofesi sebagai mahasiswa/dosen/peneliti yang aktif dalam publikasi ilmiah untuk memudahkan dalam mengulas komentar dan pertanyaan pengulas (*reviewer*). Buku yang berjudul "Solusi Menjawab "*Comment Reviewer*" Pada Artikel Ilmiah di Jurnal Internasional Bereputasi" ini dimaksudkan untuk memberikan wawasan serta tuntutan kepada mahasiswa/dosen/peneliti untuk merespon komentar penguas dengan baik dan bijaksana serta berdampak besar pada peluang diterimanya artikel ilmiah pada jurnal internasional bereputasi. Buku panduan ini memberikan tips-tips terbaik dalam mengelola respon agar pengulas puas dan nyaman ketika menerima revisi naskah. Lebih lanjut, Buku ini juga diharapkan dapat digunakan oleh peneliti sebagai panduan dalam menulis artikel ilmiah yang baik berdasarkan contoh-contoh ulasan yang disajikan dalam buku ini, khususnya pada bidang karbon aktif berbasis biomassa untuk aplikasi superkapasitor. Selain itu, kumpulan-kumpulan ulasan yang disajikan merupakan kumpulan ulasan terbaru dari artikel ilmiah yang terbit tahun 2020-2022 sehingga menjadi representasi pembaca untuk mengantisipasi komentar-komentar pengulas. Oleh karena itu, buku ini sangat selaras dan patut dijadikan sebagai panduan dalam menjawab setiap komentar pengulas untuk merevisi naskah agar diterima dan diterbitkan di jurnal internasional bereputasi

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PROSES review atau pertinjauan merupakan satu dari beberapa tahap dalam publikasi artikel ilmiah. Setelah mengirimkan manuskrip untuk publikasi disuatu jurnal penerbit, tentunya kita senang ketika editor memutuskan melanjutkan proses ini pada peninjauan oleh rekan sejawat (under review). Editor akan mengirimkan manuskrip untuk ditinjau kepada beberapa orang yang memiliki bidang kepakaran yang serupa.

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