



Rika Taslim <rikataslim@gmail.com>

Scientific Reports: Invitation from Dr Wei to review a manuscript

1 message

Scientific Reports <do-not-reply@springernature.com>
To: rikataslim@gmail.com

Tue, Aug 2, 2022 at 3:35 PM

****The contents of this email are confidential.****

Ref: Submission ID 3f372868-0043-49a0-92c6-6df5ee08b3fb

Dear Dr Taslim,

Scientific Reports has received a manuscript that I'd like to invite you to review, as you have published related work yourself. You'll find the details appended underneath this email.

Please accept or decline the manuscript using the link below. Should you choose to decline, you'll be given the option to recommend alternative reviewers, which would be greatly appreciated.

Kind regards,

Mingdeng Wei
Editorial Board Member
Scientific Reports

To accept or decline the manuscript, please use this link:

<https://reviewer-feedback.nature.com/review-invitation/d323f7c5-faaa-4a64-a222-e7b5fc590c6c>

If you wish to contact us about the manuscript, please email srep@nature.com.

Submission details

Authors:

Gaurav Nath, Diksha Singh, Pawan Dhapola, Girish Patil, Chandradip Jadhav, Tejas Sharma, Abhimanyu Singh, Pramod Singh, Mohd Nor Faiz Norrahim, Subhrajit Konwar

Title:

"Biodegradable methylcellulose biopolymer-derived activated porous carbon for dual Energy application"

Abstract:

Activated porous carbon was synthesized from methylcellulose biopolymer through a two-step mechanism involving H₃PO₄ as an activating agent and then thermally carbonized in a tubular furnace under an inert atmosphere at 8500 C. The product was next rinsed with strong HCl, neutralized with deionized water, and dried in an oven at 800 C. Then, to fully understand the behavior of the activated porous carbon, it was characterized using techniques such as X-ray diffraction (XRD), field emission scanning electron microscopy (FESEM), energy-dispersive X-ray spectroscopy (EDS), RAMAN spectroscopy, Brunauer-Emmett-Teller (BET), and thermal gravimetric analysis (TGA). Additionally, we have created dye-sensitive solar cells and an electric double layer capacitor (EDLC) using this porous carbon produced from methylcellulose (DSSC). We used the above-mentioned prepared porous carbon for the electrode portion of the Electric Double Layer Capacitor (EDLC) fabrication, and the maximized polymer electrolyte film made from the methyl cellulose (MC) biopolymer combined with 60 wt.% of 1-ethyl-3-methylimidazolium tricyanomethanide ionic liquid (IL), with a maximum conductivity of 1.93×10⁻² S/cm, for the electrolyte. The fabricated EDLC device shows a specific capacitance of 60.8 F/gm at 5mV/s scan rate which was confirmed by cyclovoltammetry and a low-frequency impedance plot in the CH electrochemical workstation. The DSSC device was fabricated using the same porous carbon as a material for the counter electrode and the same composition polymer electrolyte that had been used in the EDLC as the electrolyte for the DSSC which yields an efficiency of 0.86%. The fill factor and other parameters are also calculated from the JV characteristics that had been characterized and obtained in solar simulator.

To accept or decline the manuscript, please use this link:

<https://reviewer-feedback.nature.com/review-invitation/d323f7c5-faaa-4a64-a222-e7b5fc590c6c>

Reviewing for Scientific Reports

Scientific Reports is committed to providing a rapid and fair review process. So, if you decide to accept the manuscript, we would hope to receive your report within 10 days.

The editorial board and publishing team of Scientific Reports are not able to anticipate all potential competing interests, so we ask you to draw our attention to anything that might affect your review, and to decline submissions where it may be hard to remain objective.

If you would prefer us not to contact you in the future, please let us know by emailing srep@nature.com.



Rika Taslim <rikataslim@gmail.com>

Scientific Reports: Thank you for your review on "Biodegradable methylcellulose biopolymer-derived activated porous carbon for dual Energy application"

2 messages

Scientific Reports <srep@nature.com>
To: rikataslim@gmail.com

Sun, Aug 14, 2022 at 9:19 PM

Ref: "Biodegradable methylcellulose biopolymer-derived activated porous carbon for dual Energy application"

Dear Dr Rika Taslim,

Thank you for submitting your report to Scientific Reports. We greatly value the time and effort you put into reviewing the manuscript.

We've attached a copy of the report for your reference. You can also use this email to verify your review activity with third party websites, such as Publons.

If you have opted to have your name included in our [monthly list of reviewers](#) on the Scientific Reports website, we will add it in the first week of September.

We'll email you the decision on the manuscript as soon as it is made. Meanwhile, we hope that we can continue to benefit from your expertise in the future.

Kind regards,

Peer Review Advisors
Scientific Reports

 **Your review report for Scientific Reports.pdf**
64K

Rika Taslim <rikataslim@gmail.com>
To: reviews@publons.com

Mon, Aug 15, 2022 at 10:48 AM

[Quoted text hidden]

 **Your review report for Scientific Reports.pdf**
64K