



ANDI SETIAWAN <andi.setiawan@fmipa.unila.ac.id>

Reminder for Presentation Materials of International Symposium of 2nd JESSD

5 messages

International Symposium of JESSD <symposium.jessd@ui.ac.id>
To: Andi Setiawan <andi.setiawan@fmipa.unila.ac.id>

Fri, Sep 17, 2021 at 6:19 PM

Dear Andi Setiawan

Department of Chemistry, Faculty of Mathematic and Natural Science, Bandar Lampung, 35141, Lampung Indonesia

I would like to remind you to submit the presentation materials for your manuscript Application SEM-EDX in Biodegradation of Seafood Wastes by Sponge-Derived Actinomycetes 19C38A1 in Solid Fermentation with Manuscript ID JESSD-179 which consist of:

1. Presentation video, Make sure the video length doesn't exceed 9 minutes (2 minutes for opening-closing and 7 minutes for main material). please check these guidelines <https://symposiumjessd.ui.ac.id/guideline-virtual-presentations/>. Also, an example video presentation from one of speaker here: https://drive.google.com/file/d/18_ApcENQYhPY7XIS0noZNFTk3DiCo-M3/view
2. Name of the author who will attend the virtual symposium

Please submit the materials immediately, it will help our team to proceed with your paper. Please confirm us when you will be able to submit the materials by replying to this email, I will really appreciate it. Have a nice day!

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Sincerely,

Herdis Herdiansyah

2nd JESSD Symposium Chair

School of Environmental Science, Universitas Indonesia

scholarhub.ui.ac.id/jessd | <https://symposiumjessd.ui.ac.id/>

ANDI SETIAWAN <andi.setiawan@fmipa.unila.ac.id>
To: International Symposium of JESSD <symposium.jessd@ui.ac.id>

Fri, Sep 17, 2021 at 10:25 PM

Dear Herdis Herdiansyah,

I would like to submit a manuscript ID JESSD-179 "Application SEM-EDX in Biodegradation of Seafood Wastes by Sponge-Derived Actinomycetes 19C38A1 in Solid Fermentation" with the presentation Video.

Widyastuti is the author who will attend the virtual symposium

Best regards

Andi Setiawan

 [ArticeI WIDYASTUTI JESSD 179 \(IOP\).doc](#) [Format-WIDYASTUTI Revision-JESSD 179.docx](#) [WIDYASTUTI JESSD 179.wmv](#)

[Quoted text hidden]

International Symposium JESSD <symposium.jessd@ui.ac.id>
To: ANDI SETIAWAN <andi.setiawan@fmipa.unila.ac.id>

Sat, Sep 18, 2021 at 8:07 AM

Dear Andi Setiawan

We have received your revised manuscript and video presentation. Due to page reduction, we send you the revised invoice. Please make sure to fulfill the payment before September 19th, 2021. Thank you, have a great day!

[Quoted text hidden]

 **Invoice bank transfer-JESSD 179 Rev.pdf**
63K

ANDI SETIAWAN <andi.setiawan@fmipa.unila.ac.id>
To: International Symposium JESSD <symposium.jessd@ui.ac.id>

Sun, Sep 19, 2021 at 4:40 PM

Dear Herdis Herdiansyah,

I attach proof of payment for registration, publication, proofread fees for paper JESSD 179. on behalf of Widyastuti

Best regards,
Andi Setiawan
[Quoted text hidden]

 **Registration, Publication, and Proofread fees for paper JESSD 179.pdf**
127K

International Symposium JESSD <symposium.jessd@ui.ac.id>
To: ANDI SETIAWAN <andi.setiawan@fmipa.unila.ac.id>

Sun, Sep 19, 2021 at 5:34 PM

Dear Andi Setiawan

We have received your payment proof. Thank you, have a great day!
[Quoted text hidden]

Application SEM-EDX in Biodegradation of Seafood Wastes by Sponge-Derived Actinomycetes 19C38A1 in Solid Fermentation

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Abstract. Biodegradation of chitin by microorganisms can produce derivative products that have economic value. This research aims to apply SEM-EDX analysis in observing the biodegradation process of seafood industrial waste by actinomycetes. Shrimp shells, cuttlefish bones and fish scales were obtained from the free market. In the early stages, the SEM-EDX spectrum analysis of the substrate showed almost the same carbon, oxygen, and mineral compositions. While the surface of each substrate is quite varied. On the second day of the fermentation, SEM image analysis showed that the growth rate of actinomycetes on each substrate was significantly different. The difference in growth was supported by SEM imaging data which showed damage to the surface of each substrate. Further analysis of the degradation products by HPLC on the second and third days showed the formation of glucosamine. It suspected that actinomycetes can break down shrimp shell waste into glucosamine. This information is very important as the basis for further research related to the optimization of the glucosamine and chitooligosaccharide (COS) production process using the solid fermentation method.

1. Introduction

The demand for seafood to date tends to increase [1]. This obviously has the consequence of increasing seafood product industrial waste. The low value of seafood product waste raises problems related to distribution, transportation, waste handling, and environmental degradation. Efforts to utilize the availability of seafood product industrial waste as a source of chitin and chitosan have been carried out. Seafood industry waste is chemically processed to extract chitin. Furthermore, chitin products can be converted into chitosan and its derivative products which have a higher economic value. This conventional method is quite effective but can reduce the quality of the surrounding environment [2].

In line with technological developments, solid waste treatment such as seafood industrial waste can be overcome by solid-state fermentation (SSF) methods. Currently, the application of the SSF method is a reliable alternative because the process is relatively cheaper when compared to other fermentation methods. In addition, the SSF process is more environmentally friendly and easy to perform. The