



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Journal of Physical Science - Manuscript ID JPS-OA-20-0008

1 message

Journal of Physical Science <onbehalfof@manuscriptcentral.com>
Reply-To: zulkiflimusa@gmail.com
To: wipsarian@uny.ac.id

11 January 2020 at 14:33

11-Jan-2020

Dear Dr. Dwandaru:

Your manuscript entitled "CHICKEN BONE WASTES AS A PRECURSOR FOR CARBON DOTS MATERIAL IN OLIVE OIL" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Physical Science.

Your manuscript ID is JPS-OA-20-0008.

Please mention the above manuscript ID in all future correspondence or when calling the office for questions. If there are any changes in your street address or e-mail address, please log in to ScholarOne Manuscripts at <https://mc.manuscriptcentral.com/jpsci> and edit your user information as appropriate.

You can also view the status of your manuscript at any time by checking your Author Center after logging in to <https://mc.manuscriptcentral.com/jpsci>.

Thank you for submitting your manuscript to the Journal of Physical Science.

Sincerely,
Journal of Physical Science Editorial Office



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Journal of Physical Science - JPS-OA-20-0008 returned to draft

1 message

Journal of Physical Science <onbehalf@manuscriptcentral.com>
Reply-To: zulkiflimusa@gmail.com
To: wipsarian@uny.ac.id

13 January 2020 at 11:29

13-Jan-2020

Dear Dr. Wipsar Sunu Brams Dwandaru,

Your manuscript, JPS-OA-20-0008, entitled "CHICKEN BONE WASTES AS A PRECURSOR FOR CARBON DOTS MATERIAL IN OLIVE OIL" has been unsubmitted (returned to draft) from the system.

The manuscript, at the point, is declined from further processing, and requires re-submission (continue from draft), with the following changes undertaken:

1. The language of the paper is poor. Please engage a professional editing service to clean up the manuscript.
2. Ensure proper compliance of referencing (abbreviation/italicisation of journals, etc.).
3. Include grant details (grant number and grant provider) in the Acknowledgements section.

Please visit the manuscript online system again at <http://mc.manuscriptcentral.com/jpsci> complete your submission and re-submit the manuscript for consideration of publication. You may contact the Editorial Office if you have further questions.

Sincerely,
Journal of Physical Science Editorial Office



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Journal of Physical Science - Manuscript ID JPS-OA-20-0008

1 message

Journal of Physical Science <onbehalfof@manuscriptcentral.com>
Reply-To: zulkiflimusa@gmail.com
To: wipsarian@uny.ac.id

18 January 2020 at 11:21

18-Jan-2020

Dear Dr. Dwandaru:

Your manuscript entitled "CHICKEN BONE WASTES AS PRECURSOR FOR CARBON DOTS MATERIAL IN OLIVE OIL" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Physical Science.

Your manuscript ID is JPS-OA-20-0008.

Please mention the above manuscript ID in all future correspondence or when calling the office for questions. If there are any changes in your street address or e-mail address, please log in to ScholarOne Manuscripts at <https://mc.manuscriptcentral.com/jpsci> and edit your user information as appropriate.

You can also view the status of your manuscript at any time by checking your Author Center after logging in to <https://mc.manuscriptcentral.com/jpsci>.

Thank you for submitting your manuscript to the Journal of Physical Science.

Sincerely,
Journal of Physical Science Editorial Office



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Journal of Physical Science - Decision on Manuscript ID JPS-OA-20-0008

2 messages

Journal of Physical Science <onbehalf@manuscriptcentral.com>

2 March 2020 at 09:30

Reply-To: chlatif@usm.my

To: wipsarian@uny.ac.id

Cc: chlatif@usm.my, zulkiflimusa@gmail.com

02-Mar-2020

Dear Dr. Wipsar Sunu Brams Dwandaru:

Manuscript ID JPS-OA-20-0008 entitled "CHICKEN BONE WASTES AS PRECURSOR FOR CARBON DOTS MATERIAL IN OLIVE OIL" which you submitted to the Journal of Physical Science, has been reviewed. The comments of the reviewer(s) are included at the bottom of this letter.

Based on the reviews, a major revision is recommended.

To revise your manuscript, log into <https://mc.manuscriptcentral.com/jpsci> and enter your Author Center, where you will find your manuscript title listed under "Manuscripts with Decisions." Under "Actions," click on "Create a Revision." Your manuscript number has been appended to denote a revision.

Please ENSURE that changes in the newly revised documents are marked distinctively, e.g., using different font colour to facilitate smooth review.

You may also click the below link to start the revision process (or continue the process if you have already started your revision) for your manuscript. If you use the below link you will not be required to login to ScholarOne Manuscripts.

*** PLEASE NOTE: This is a two-step process. After clicking on the link, you will be directed to a webpage to confirm. ***

https://mc.manuscriptcentral.com/jpsci?URL_MASK=62d69981272a485aa173eb366ff57330

You will be unable to make your revisions on the originally submitted version of the manuscript. Instead, revise your manuscript using a word processing program and save it on your computer. Once the revised manuscript is prepared, you can upload it and submit it through your Author Center.

When submitting your revised manuscript, you will be able to respond to the comments made by the reviewer(s) in the space provided. You can use this space to document any changes you make to the original manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the reviewer(s).

IMPORTANT: Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

Once again, thank you for submitting your manuscript to the Journal of Physical Science and I look forward to receiving your revision.

Sincerely,
Prof. Abdul Latif Ahmad
Editor-in-Chief, Journal of Physical Science

Reviewer(s)' Comments to Author:

Reviewer: 1

1- The introduction must talk about c-dot and its synthesis in nano technology like green synthesis. No mention of bones and olive oil but a little. The introduction is not appropriate with the subject. Also the procedure didn't mention the separation of c-dot, its not clear.

2- You have a good characterization test, but the SEM showed only 2 micron scale and thus is not enough. TEM will

be benefit to describe c-dots.

Reviewer: 2

Introduction

Explained in the introduction "...primary protein... chicken bone is collagen". But as is well known that the main component of bone is calcium (and blood).

a) What do researchers do to eliminate the chemical composition of calcium?

b) or, does the element calcium contribute to the optical properties of carbon dots?

Then in the last paragraph in the introduction there is a incorrect narrative. In general, the narrative should only relate to the aims and foresight regarding the knowledge being developed. So that relating to the details of the experimental method can be removed.

Experimental

In general the explanation of the experimental method is in accordance with scientific standards consisting of the explanation of the subject, stages and validation methods of the study.

However, the authors are still not consistent in the use of scientific terms. As in:

2.2 Synthesis of C-dots Solution

"..... 6,0 gram of chicken bone powder is dissolved in 60 ml olive oil."

In general, this process is not called "dissolved" but "dispersed".

2.3.2 PL

2.3.3 FTIR

2.3.4 SEM

Please explain the writing "PL" to "Photoluminescence (PL) spectrophotometer", FTIR to Fourier Transform Infra Red (FTIR), and SEM to "Scanning Electron Microscope (SEM)".

Results and Discussions

The results and discussion are interesting to read and study, because they have a new perspective on the use of each material, the synthesis process and the results of carbon dots. In addition, the results of optical characteristics, chemical composition and morphology show that carbon dots have interesting and clear potential applications.

However, it is necessary to add several measurements to support the assumptions and arguments that were built. As an example:

"According to Li et. al. (2017) and Fadli (2018) the red emission shows a structure of porphyrin. The aforementioned structure is one of many structures of chlorophyll. In this case, the porphyrin comes from the olive oil because olive oil contains chlorophyll compounds."

Please add measurements of PL spectra for olive oil, and PL spectra for carbon dots dispersed in water.

"This may be observed in Figure 9, which shows aggregates of C-dots in the structural form of bulks."

As is generally known, carbon dots (cdots) must have a 0-dimension (nanoparticles) so that they have interesting optical characteristics. Suggestions for authors can utilize the measurement of UV-Vis spectra as a method of analyzing the size of nanoparticles (carbon dots). Analysis can use the papers below:

<https://iopscience.iop.org/article/10.1088/1361-6404/aa7dbb/meta>

Do it yourself: optical spectrometer for physics undergraduate instruction in nanomaterial characterization, 2017 Eur. J. Phys. 38 055501

"Hence, the result of UV-Vis test is in accordance with the FTIR test."

Please clarify the meaning of the sentence, so that it is logical and clear.

"This indicates that the addition of C-dots into the olive oil decreases the values of viscosity and surface tension of the olive oil. In the heating process of the solution using the microwave, the microwave makes the molecules of the solution to vibrate and interact with each other."

It is better if this statement is supported by the right reference and physical model (graph) so that it is logical and clear.

Reviewer: 3

The authors describe synthesis of carbon nanodots (C-dots) from chicken bone and olive oil in a facile methods. While the results are interesting, I do have some major queries that need clarification:

1. What is the actual precursor of the C-dots? Is it the bone? or is it the olive oil? the bone contains of 70% minerals (hydroxyapatite) with 30% collagen, whereas olive oil is of carbon majority. The author need to unambiguously prove that the bone powder is important precursor/source of the C-dots. I am afraid that the bone (hydroxyapatite crystal) is just the catalyst. To test this hypothesis, perhaps the author should do a control experiment to synthesize C-dots with olive oil and hydroxyapatite.

2. On UV-Vis and PL spectra, the author should also provide the UV-Vis and PL spectra of the olive oil since the oil also absorb UV at around 250 nm. The PL spectra presented here also characteristics of the olive oil PL spectrum.
3. On FTIR spectra, the presence of C=O and C=C band do not unambiguously proves the presence of C-dots, the olive oil itself (oleic acid) also have the C=C and C=O bonds. Again this study is lacking a control sample. Perhaps the author should do FTIR for olive oil and compare the result to the C-dots solution to identify is there any differences in the C=O and C=C band intensities.
4. The SEM clearly shows hydroxyapatite crystallite of hexagonal structure. I couldn't see where the C-dots are. To make sure, the authors are advised to check the composition analysis using SEM-XRF.
5. Some minor correction:
 - a) page 8 line 42: your results show absorption at 234 and 267 nm, whereas in line 57 the author states that the C-dots absorption should be in the range of 269 - 360 nm. Which one is correct?
 - b) page 9 line 4, the PL peak at 674 nm is claimed from the C-dots, but in line 10 it is said that the peak is of porphyrin content in the olive oil. which one is correct?
 - c) why the presence of C-dots in olive oil reduces the density of the solution? shouldn't it increases the density?

Reviewer: 4

The manuscript seems good, which is trying to obtain c-dot from waste material. However, there are some comments that should be considered.

1. The author should show the originality of the research instead of utilize waste material to get advanced material. How unique this waste material that influencing the resulted c-dot?
2. TEM image should be used to prove the existence of c-dot.
3. How do the author validate the measurement of viscosity and surface tension?

- **Sunu Brams Dwandaru, M.Sc** <wipsarian@uny.ac.id>
To: emi kurniasari <kurniasariemi@gmail.com>

3 March 2020 at 08:25

[Quoted text hidden]



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Reminder: Journal of Physical Science

1 message

Journal of Physical Science <onbehalf@manuscriptcentral.com>
Reply-To: zulkiflimusa@gmail.com
To: wipsarian@uny.ac.id

19 April 2020 at 16:35

19-Apr-2020

Dear Dr. Dwandaru:

Recently, you received a decision on Manuscript ID JPS-OA-20-0008, entitled "CHICKEN BONE WASTES AS PRECURSOR FOR CARBON DOTS MATERIAL IN OLIVE OIL." The manuscript and decision letter are located in your Author Center at <https://mc.manuscriptcentral.com/jpsci>.

You may also click the below link to start the revision process (or continue the process if you have already started your revision) for your manuscript. If you use the below link you will not be required to login to ScholarOne Manuscripts.

*** PLEASE NOTE: This is a two-step process. After clicking on the link, you will be directed to a webpage to confirm.

https://mc.manuscriptcentral.com/jpsci?URL_MASK=beeb7703eab440e1819521d8f6fadfd

This e-mail is simply a reminder that your revision is due in two weeks. If it is not possible for you to submit your revision within two weeks, we will consider your paper as a new submission.

Sincerely,
Journal of Physical Science
Journal of Physical Science Editorial Office
zulkiflimusa@gmail.com



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Journal of Physical Science - Manuscript ID JPS-OA-20-0008.R1

1 message

Journal of Physical Science <onbehalfof@manuscriptcentral.com>

2 May 2020 at 19:05

Reply-To: zulkiflimusa@gmail.com

To: wipsarian@uny.ac.id

02-May-2020

Dear Dr. Dwandaru:

Your manuscript entitled "CHICKEN BONE WASTES AS PRECURSOR FOR CARBON DOTS IN OLIVE OIL" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Physical Science.

Your manuscript ID is JPS-OA-20-0008.R1.

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You can also view the status of your manuscript at any time by checking your Author Center after logging in to <https://mc.manuscriptcentral.com/jpsci>.

Thank you for submitting your manuscript to the Journal of Physical Science.

Sincerely,
Journal of Physical Science Editorial Office



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Revision of JPS-OA-20-0008 (Wipsar Sunu Brams Dwandaru-UNY)

3 messages

- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

1 May 2020 at 17:21

To: Zulkifli Musa <zulkiflimusa@gmail.com>, "- Sunu Brams Dwandaru, M.Sc" <wipsarian@uny.ac.id>, emi kurniasari <kurniasariemi@gmail.com>

Dear Editorial of Journal of Physical Science,

First and foremost, we would like to apologize for the late reply and revision of our manuscript.

We have started the revision process on the ScholarOne website.

We just need to upload the revised manuscript.

However, the revision session has closed and we cannot edit it. Is there any way that it can be extended?


Moreover, we attached the revised manuscript, response letter, and file figure 7, which we have revised.


Hopefully, the Editor can help us. We greatly appreciate your assistance.

Best regards,
Wipsar Sunu Brams Dwandaru, PhD
Physics Education Department,
Universitas Negeri Yogyakarta.

3 attachments

 **manuscript JPS Emi Revised Final.docx**
49K

 **response letter final.docx**
45K

 **Figure 7 revised.docx**
61K

Zulkifli Musa <zulkiflimusa@gmail.com>

2 May 2020 at 13:34

To: "- Sunu Brams Dwandaru, M.Sc" <wipsarian@uny.ac.id>

Hello Wipsar,

The deadline has been extended to 31 May 2020 to facilitate you making the submission of revision.

Rgds
Zul

[Quoted text hidden]

[Quoted text hidden]

Untuk mendukung "Gerakan UNY Hijau", disarankan tidak mencetak email ini dan lampirannya.
(To support the "Green UNY movement", it is recommended not to print the contents of this email and its
attachments)

Universitas Negeri Yogyakarta
www.uny.ac.id

- **Sunu Brams Dwandaru, M.Sc** <wipsarian@uny.ac.id>
To: Zulkifli Musa <zulkiflimusa@gmail.com>

2 May 2020 at 19:12

Dear Zul,

Thank you very much for giving us some extension for uploading the revised manuscript. We really appreciate it.

In fact we have finished the revision.

Thank you again for your assistance and we would like to apologize for the inconvenience.

Hopefully our manuscript may be considered further.

[Quoted text hidden]

[Quoted text hidden]



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Journal of Physical Science - Decision on Manuscript ID JPS-OA-20-0008.R1

2 messages

Journal of Physical Science <onbehalf@manuscriptcentral.com>

12 June 2020 at 10:12

Reply-To: chlatif@usm.my

To: wipsarian@uny.ac.id

Cc: chlatif@usm.my, zulkiflimusa@gmail.com

12-Jun-2020

Dear Dr. Wipsar Sunu Brams Dwandaru:

Manuscript ID JPS-OA-20-0008.R1 entitled "CHICKEN BONE WASTES AS PRECURSOR FOR CARBON DOTS IN OLIVE OIL" which you submitted to the Journal of Physical Science, has been reviewed. The comments of the reviewer(s) are included at the bottom of this letter.

The decision is to allow the authors to prepare a revision that fully complies with the journal's standard of publication. Changes required are outlined below this email.

Note that acceptance will be only extended to paper that has undergone satisfactory revision.

To revise your manuscript, log into <https://mc.manuscriptcentral.com/jpsci> and enter your Author Center, where you will find your manuscript title listed under "Manuscripts with Decisions." Under "Actions," click on "Create a Revision." Your manuscript number has been appended to denote a revision.

You may also click the below link to start the revision process (or continue the process if you have already started your revision) for your manuscript. If you use the below link you will not be required to login to ScholarOne Manuscripts.

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https://mc.manuscriptcentral.com/jpsci?URL_MASK=d7f6232b24784ab8b4b202aab96213e7

You will be unable to make your revisions on the originally submitted version of the manuscript. Instead, revise your manuscript using a word processing program and save it on your computer.

Once the revised manuscript is prepared, you can upload it and submit it through your Author Center.

When submitting your revised manuscript, you will be able to respond to the comments made by the reviewer(s) in the space provided. You can use this space to document any changes you make to the original manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the reviewer(s).

IMPORTANT: Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

Once again, thank you for submitting your manuscript to the Journal of Physical Science and I look forward to receiving your revision.

Sincerely,
Prof. Abdul Latif Ahmad
Editor-in-Chief, Journal of Physical Science

Review:

- The manuscript requires thorough English proofreading and editing. Where appropriate, engage a professional, certified editing service to eliminate all language errors. Unsatisfactory language revision might result in the manuscript returned to draft, or for severe lack of language strength, declined from acceptance altogether.

- Upload only one single Main Document for the manuscript. Delete all other/previous revisions.

- Ensure that all authors' names are written in full.
- Ascertain that authors' address(es) are complete and accurate, with postcode.
- Set the language to English (UK). Make necessary changes to fulfil to this language style and convention.
- Ensure correct use of section formatting (1. INTRODUCTION, 2. EXPERIMENTAL [capital formatting], 2.1. Preparation of the iPP Membrane... etc.).
- In the latest revision, authors must ascertain to include all illustrations (figures and tables, together with the corresponding captions) in the correct order in the texts (not after texts or in separate documents).
- Reproduce Figure 7, due to very poor quality.
- Changes made in the latest revision should not be marked with different colours (as it will be screened internally without external review). The document should be free from marked changes.
- For illustrations with similar graph lines (or patterns), add additional labelling (or in legends) in such a way that different lines can be distinguished in print or grey-coloured format). Double check all your illustrations.
- Double check accuracy of in-text references with reference list (at the end of the paper).
- When applicable, where equations are concerned, symbols used in the equations should be of consistence style with the labelling.
- When indicating materials and equipment used, provide the city/country of the equipment acquired. Please go through the manuscript and ensure that all details are complete.
- When making in-text references, the superscripted numbering should be placed after the full stop (not before, or in the midst of sentence). Authors should double check and confirm this convention.
- Double check completeness of bibliographic listing (e.g., books must come with city of publication), page numbers, issue number, etc.
- Ensure that in the Acknowledgements section, sufficient and correct grant details are provided (grant provider and grant number).
- In References, double-check compliance, to ensure adherence to the journal style. Refer to the author's guidelines to regulate compliance to the in-house style (<http://jps.usm.my/wp-content/uploads/2016/11/GFA-JPS-1-Nov-2016.pdf>).
- At the end of each reference (where applicable), ensure to include DOI info, using the following formatting:
https://doi.org/doi_identifier.

Example:

1. Donzel, L. & Schuderer, J. (2012). Nonlinear resistive electric field control for power electronic modules. IEEE Trans. Dielect. Elect. Ins., 19(3), 955–959. <https://doi.org/10.1109/TDEI.2012.6215099>

- **Sunu Brams Dwandaru, M.Sc** <wipsarian@uny.ac.id>
To: emi kurniasari <kurniasariemi@gmail.com>

12 June 2020 at 10:21

[Quoted text hidden]



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Journal of Physical Science - Manuscript ID JPS-OA-20-0008.R2

1 message

Journal of Physical Science <onbehalf@manuscriptcentral.com>
Reply-To: zulkiflimusa@gmail.com
To: wipsarian@uny.ac.id

19 June 2020 at 13:38

19-Jun-2020

Dear Dr. Dwandaru:

Your manuscript entitled "CHICKEN-BONE WASTES AS PRECURSOR FOR CARBON DOTS IN OLIVE OIL" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Physical Science.

Your manuscript ID is JPS-OA-20-0008.R2.

Please mention the above manuscript ID in all future correspondence or when calling the office for questions. If there are any changes in your street address or e-mail address, please log in to ScholarOne Manuscripts at <https://mc.manuscriptcentral.com/jpsci> and edit your user information as appropriate.

You can also view the status of your manuscript at any time by checking your Author Center after logging in to <https://mc.manuscriptcentral.com/jpsci>.

Thank you for submitting your manuscript to the Journal of Physical Science.

Sincerely,
Journal of Physical Science Editorial Office



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Journal of Physical Science - Decision on Manuscript ID JPS-OA-20-0008.R2

1 message

Journal of Physical Science <onbehalf@manuscriptcentral.com>

19 June 2020 at 18:34

Reply-To: chlatif@usm.my

To: wipsarian@uny.ac.id

Cc: chlatif@usm.my, zulkiflimusa@gmail.com

19-Jun-2020

Dear Dr. Wipsar Sunu Brams Dwandaru,

We are pleased to inform you of our decision to accept your manuscript entitled "CHICKEN-BONE WASTES AS PRECURSOR FOR CARBON DOTS IN OLIVE OIL" for publication in the Journal of Physical Science. The article is now scheduled for Vol. 31, No. 2 (Aug/Sept 2020).

This acceptance is conditional upon the following undertakings:

1. The enclosed copyright transfer form is signed and returned to us within seven days.
2. The manuscript passes the pre-production plagiarism screening.

During the publication process, our representative will be in touch of you on editorial queries requiring your attention and response.

IMPORTANT: All queries should be responded within the stipulated deadline. Please note that failure to comply with the deadline may result in the article withdrawn from publication.

Enclosed is the copyright transfer form that you will need to fill up and sign. Once signed, please send this copyright form back to the following email:

zulkifli_musa@usm.my or/and zulkiflimusa@gmail.com

We extend our warm appreciation on your fine contribution. On behalf of the Editor-in-Chief and the editorial team members, we look forward to your continued contributions to the Journal.

Congratulations!

Sincerely,

Prof. Abdul Latif Ahmad
Editor-in-Chief, Journal of Physical Science



* **Copyright-Form---JPS.pdf**

137K



- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

Copyright Transfer Form (Wipsar Sunu Brams Dwandaru ID JPS-OA-20-0008.R2))

2 messages

- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>

20 June 2020 at 09:51

To: chlatif@usm.my, Zulkifli Musa <zulkiflimusa@gmail.com>, zulkifli_musa@usm.my, emi kurniasari <kurniasariemi@gmail.com>, "- Sunu Brams Dwandaru, M.Sc" <wipsarian@uny.ac.id>

CHICKEN-BONE WASTES AS PRECURSOR FOR CARBON DOTS IN OLIVE OIL
=====


Dear Editorial Team Journal of Physical Science,
Editor-in-Chief: Prof. Abdul Latif Ahmad

We are delighted that our manuscript has been accepted to be published in your excellent Journal of Physical Science. Thank you very much for the efforts by the Editors and Reviewers such that our manuscript can be accepted in your journal.

Furthermore, we have filled in the copyright transfer form (in pdf), which is attached to this email.

Finally, we hope to continue our contribution to the Journal of Physical Science.

Best regards,
Wipsar Sunu Brams Dwandaru, PhD
Physics Education Department,
Universitas Negeri Yogyakarta

 - Copyright-Form---JPS Dwandaru 2020.pdf
148K

Zulkifli Musa <zulkiflimusa@gmail.com>

21 June 2020 at 19:54

To: "- Sunu Brams Dwandaru, M.Sc" <wipsarian@uny.ac.id>

Thank you.

Rgds
Zul

[Quoted text hidden]

[Quoted text hidden]

Untuk mendukung "Gerakan UNY Hijau", disarankan tidak mencetak email ini dan lampirannya.
(To support the "Green UNY movement", it is recommended not to print the contents of this email and its attachments)

Universitas Negeri Yogyakarta
www.uny.ac.id

Penultimate draft: JPS Vol. 31, No. 2

6 messages

Zulkifli Musa <zulkifli_musa@usm.my>
To: "wipsarian@uny.ac.id" <wipsarian@uny.ac.id>

6 August 2020 at 07:55

Dear Wipsar,

Enclosed, please find the penultimate draft of your article. Please review and see that all is good to go. There should be no major changes at this point.

Also, please DO NOT click on the DOI link as yet, since the link will only be active upon publication of the issue. Clicking it now will return an error.

Do get back to me the latest by 13 August 2020; if no response is received by then we shall proceed as the final piece.

Many thanks.


Rgds
Zul
Journal of Physical Science

 **JPS 31(2)_Art8_P-Akhir.pdf**
2106K

- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>
To: emi kurniasari <kurniasariemi@gmail.com>

6 August 2020 at 08:41

[Quoted text hidden]

 **JPS 31(2)_Art8_P-Akhir.pdf**
2106K

emi kurniasari <kurniasariemi@gmail.com>
To: "- Sunu Brams Dwandaru, M.Sc" <wipsarian@uny.ac.id>

6 August 2020 at 12:19

[Quoted text hidden]

[Quoted text hidden]

Untuk mendukung "Gerakan UNY Hijau", disarankan tidak mencetak email ini dan lampirannya.
(To support the "Green UNY movement", it is recommended not to print the contents of this email and its attachments)

Universitas Negeri Yogyakarta
www.uny.ac.id

 **JPS 31(2)_Art8_P-Akhir.pdf**
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emi kurniasari <kurniasariemi@gmail.com>
To: "- Sunu Brams Dwandaru, M.Sc" <wipsarian@uny.ac.id>

6 August 2020 at 13:02

Pada tanggal Kam, 6 Agu 2020 pukul 08.41 - Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id> menulis:

[Quoted text hidden]

[Quoted text hidden]

 **JPS 31(2)_Art8_P-Akhir.pdf**
2160K

- Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>
To: Zulkifli Musa <zulkifli_musa@usm.my>

6 August 2020 at 16:05

Dear Zul,

Thank you very much for the email.

First of all, we are delighted that our manuscript will finally be published in your excellent journal. We would like to give our gratitudes to the editors and reviewers for making this possible.


The manuscript is in good shape. However, there are just two minor revisions to the manuscript, if it is possible to be fixed, i.e.:

1. On page 122, below Figure 6, the letter 'pi' (yellow-blocked) should be replaced by 'n'.
2. On page 124, above Figure 8, the value of 637.52 nm (yellow-blocked) should be replaced by 673.52 nm.

Please **see the manuscript with comments** attached in this email.

Best regards,
Wipsar Sunu Brams

[Quoted text hidden]

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2137K

Zulkifli Musa <zulkifli_musa@usm.my>
To: "- Sunu Brams Dwandaru, M.Sc" <wipsarian@uny.ac.id>

6 August 2020 at 16:27

OK, will do the necessary.

Many thanks for your prompt action and response.

Rgds
Zul

From: - Sunu Brams Dwandaru, M.Sc <wipsarian@uny.ac.id>
Sent: 06 August 2020 17:05
To: Zulkifli Musa <zulkifli_musa@usm.my>
Subject: Re: Penultimate draft: JPS Vol. 31, No. 2

[Quoted text hidden]

[Quoted text hidden]

Response Letter

Dear Editorial Journal of Physical Science,

First of all we would like to give our gratitude to the Editorial of Journal of Physical Science for considering our manuscript to be published. Next, we would like to apologize for the late reply of the manuscript revision.

We would also like to thank the four reviewers for sharing their precious time in reviewing our manuscript. The comments and suggestions have been taken into account in the revised manuscript and greatly improved the manuscript. Hence we would like to give our response to all comments given by the reviewers in the form a Table below.

No.	Comments	Responses
Reviewer 1		
1	The introduction must talk about c-dot and its synthesis in nano technology like green synthesis. No mention of bones and olive oil but a little. The introduction is not appropriate with the subject. Also the procedure didn't mention the separation of c-dot, its not clear.	<p>Thank you very much for the comments. We acknowledged that the Introduction part needs further description.</p> <p>That is why; we have revised the Introduction part of the revised manuscript to include additional descriptions, such as chicken bone wastes, olive oil, and green synthesis. The revisions are given in the yellow-blocked sentences throughout the Introduction part.</p> <p>In this study, we have stated that the separation of C-dots solution with the sediments is conducted using filter paper. However, we have not attempted in the separation of C-dots from the olive oil because it is not the main objective of the study. However, we have mentioned this out in the Conclusions part on page 11 in the yellow-blocked sentences, i.e.:</p> <p><i>"In this study, we have not yet attempted in separating the C-dots from the olive oil, as it is not our main concern. However, this may</i></p>

		<i>be conducted in future studies to obtain the gain of the C-dots from the chicken bone wastes.”</i>
2	You have a good characterization test, but the SEM showed only 2 micron scale and thus is not enough. TEM will be benefit to describe c-dots	<p>Thank you for your complement upon the characterization test results.</p> <p>We agree with the reviewer that the SEM images are not enough, such that TEM is needed. However, we were not able to provide TEM images in this manuscript because TEM facilities here are still scarce. There is no TEM device in our University. We have asked other universities and institutions for testing the samples using their TEM device, but we have to wait for quite a long queue (in months) and with expensive fee for testing the samples.</p> <p>Moreover, the current condition of the COVID 19 pandemic makes it also impossible to send or test samples as all universities are closed until further notice.</p> <p>Hence, we cannot provide TEM images at the moment. However we have pointed this out in the Conclusions part in page 12 in blue-blocked sentence, i.e.:</p> <p><i>“Therefore, in order to obtain the size and morphology images of the C-dots particles, further characterizations using SEM-XRF, transmission electron microscope (TEM) or high resolution TEM (HR-TEM) should be conducted.”</i></p>
Reviewer 2		
1	<p>Introduction</p> <p>Explained in the introduction “...primary protein... chicken bone is collagen”. But as is well known that the main component of bone is calcium (and blood).</p> <p>a) What do researchers do to eliminate</p>	<p>Thank you very much for the comments and the questions by the reviewer. The comments and questions certainly improved our manuscript.</p>

	<p>the chemical composition of calcium? b) or, does the element calcium contribute to the optical properties of carbon dots?</p>	<p>a) First of all, we have not made any attempt to eliminate the calcium mineral (hydroxyapatite) in the chicken bone wastes. This is because the hydroxyapatite has a positive affect on the C-dots. This is pointed out in the Introduction part of the revised manuscript in green-blocked sentences in page 3, i.e.:</p> <p><i>“An attempt in this line of research is synthesizing nanocomposites comprising of C-dots and hydroxyapatite (C-dots/hydroxyapatite) for various applications, such as metal ion sensing, osteogenic activities, and drug carrier (Sarkar et al., 2018). The C-dots/hydroxyapatite nanocomposite also improves its fluorescence property and surface area from 42 to 79 m²/g compared to that of blank hydroxyapatite (Chung et al., 2019). Furthermore, the C-dots/hydroxyapatite nanocomposite has also been studied for its excellent loading capacity of acetaminophen (Chung et al., 2019) and doxorubicin (Sarker et al., 2018), as well as bone tissue engineering (Gogoi et al., 2016).”</i></p> <p>b) We have pointed out a study that the hydroxyapatite in the C-dots/hydroxyapatite nanocomposites improve the fluorescence property of the C-dots as pointed out in the same revision given above.</p>
2	<p>Then in the last paragraph in the introduction there is a incorrect narrative. In general, the narrative should only relate to the aims and foresight regarding the knowledge being developed. So that relating to the details of the experimental</p>	<p>Thank you very much for the insightful comment.</p> <p>We have revised the last paragraph by removing the following sentences:</p>

	<p>method can be removed.</p>	<p><i>“The characterizations used were UV-Vis spectrophotometer, photoluminescence (PL), Fourier transform infrared spectroscopy (FTIR), and scanning electron microscope (SEM). Furthermore, the viscosity and surface tension of pure olive oil and C-dots solution (in olive oil) were also measured to determine some physical properties of the C-dots solution.”</i></p> <p>and replacing them with the following sentences:</p> <p><i>“Hence, the objectives of this study were to synthesize and characterize the C-dots from chicken bone wastes in olive oil. The current C-dots/hydroxyapatite nanocomposite described above is obtained by combining different initial or raw materials. However in this study, all of the raw materials, i.e.: collagen and hydroxyapatite are already contained in the chicken bone wastes, which shows a unique feature of a potential precursor material for producing C-dots with interesting bioactivity properties.”</i></p> <p>which are given in the green-blocked sentences at the end of page 4 above the Experimental part.</p>
<p>3</p>	<p>Experimental</p> <p>In general the explanation of the experimental method is in accordance with scientific standards consisting of the explanation of the subject, stages and validation methods of the study.</p> <p>However, the authors are still not consistent in the use of scientific terms. As in:</p> <p>2.2 Synthesis of C-dots Solution</p> <p>“..... 6,0 gram of chicken bone powder is dissolved in 60 ml olive oil.”</p>	<p>Thank you very much for the comments concerning the Experimental part of our manuscript.</p> <p>We agree in using the term “dispersed” rather than “dissolved”. Hence, we have revised the manuscript by replacing “dissolved” with “dispersed” throughout the manuscript.</p>

	In general, this process is not called "dissolved" but "dispersed".	
4	<p>2.3.2 PL 2.3.3 FTIR 2.3.4 SEM</p> <p>Please explain the writing "PL" to "Photoluminescence (PL) spectrophotometer", FTIR to Fourier Transform Infra Red (FTIR), and SEM to "Scanning Electron Microscope (SEM)".</p>	<p>We again appreciate the correction pointed out by the reviewer.</p> <p>Hence, we have revised the writing of</p> <p>2.3.2 PL 2.3.3 FTIR 2.3.4 SEM</p> <p>to</p> <p>2.3.2 Photoluminescence (PL) spectrophotometer 2.3.3 Fourier Transform Infra Red (FTIR) 2.3.4 Scanning Electron Microscope (SEM)</p> <p>given in the yellow-blocked phrases in page 6 of the revised manuscript.</p>
5	<p>Results and Discussions</p> <p>The results and discussion are interesting to read and study, because they have a new perspective on the use of each material, the synthesis process and the results of carbon dots. In addition, the results of optical characteristics, chemical composition and morphology show that carbon dots have interesting and clear potential applications.</p> <p>However, it is necessary to add several measurements to support the assumptions and arguments that were built. As an example: "According to Li et. al. (2017) and Fadli (2018) the red emission shows a structure of porphyrin. The aforementioned structure is one of many structures of chlorophyll. In this case, the porphyrin comes from the olive oil because olive oil contains chlorophyll compounds."</p> <p>Please add measurements of PL spectra for olive oil, and PL spectra for carbon</p>	<p>Thank you very much for the comments. We really do agree that additional PL measurements are need.</p> <p>However, as we were preparing the samples for further PL testing, the COVID 19 pandemic happened, such that all scientific activities of Universities had to stop and closed until further notice. Hence, we were not able to do the PL characterizations. But we have added an argument from a literature, i.e.:</p> <p><i>"According to Sena et al. (2017) extra virgin olive oil has a high intensity peak at wavelengths in the range of 650 nm to 730 nm and relatively flat at other wavelengths. The aforementioned peak is of course in accordance with the second peak of the PL spectrum in Figure 7(b), which shows the porphyrin structure in</i></p>

	dots dispersed in water.	<p><i>the olive oil as the dominant compound.”</i></p> <p>We really do apologize for this. We hope that this will not hinder the consideration of our manuscript to be published.</p>
6	<p>“This may be observed in Figure 9, which shows aggregates of C-dots in the structural form of bulks.”</p> <p>As is generally known, carbon dots (cdots) must have a 0-dimension (nanoparticles) so that they have interesting optical characteristics. Suggestions for authors can utilize the measurement of UV-Vis spectra as a method of analyzing the size of nanoparticles (carbon dots). Analysis can use the papers below: https://iopscience.iop.org/article/10.1088/1361-6404/aa7dbb/meta Do it yourself: optical spectrometer for physics undergraduate instruction in nanomaterial characterization, 2017 Eur. J. Phys. 38 055501</p>	<p>Thank you very much for the suggestions, especially in calculating the size of the C-dots via the Tauc plots according to the given paper.</p> <p>However, in order to obtain the plot we need the thickness information of the sample. In this study, we use the mixture or solution as the sample, instead of thin film. Hence, we do not have the thickness information.</p> <p>Another way in determining the size of the C-dots is using TEM images. However, due to limited TEM facilities in Indonesia and the current situation of the pandemic we are not able to do this as well.</p> <p>But, we have added this as future studies in the Conclusions part in the revised manuscript in page 12 in red-blocked sentence, i.e.:</p> <p><i>“The size of the C-dots may also be analysed via the Tauc plot (Nuryantini et al., 2017) based on the UV-Vis data results.”</i></p>
7	<p>“Hence, the result of UV-Vis test is in accordance with the FTIR test.”</p> <p>Please clarify the meaning of the sentence, so that it is logical and clear.</p>	<p>Thank you very much for the comment.</p> <p>We have clarified the meaning of:</p> <p><i>“Hence, the result of UV-Vis test is in accordance with the FTIR test.”</i></p> <p>which is given in the Results and Discussion part of the revised</p>

		<p>manuscript in page 10 in blue-blocked sentences, i.e.:</p> <p><i>“We may compare the UV-Vis and FTIR results of the samples obtained in this study. Based on the UV-Vis result, the C-dots sample has two absorbance peaks that indicate the core and the surface state of C-dots, respectively. On the other hand, the FTIR test produces two functional groups, i.e.: C = C and C = O. The C = C and C = O functional groups indicate as well the core and the surface state of the C-dots, respectively. Hence, the result of UV-Vis test is in accordance with the FTIR test and mutually reinforces that the resulting sample obtained is C-dots.”</i></p>
8	<p>“This indicates that the addition of C-dots into the olive oil decreases the values of viscosity and surface tension of the olive oil. In the heating process of the solution using the microwave, the microwave makes the molecules of the solution to vibrate and interact with each other.”</p> <p>It is better if this statement is supported by the right reference and physical model (graph) so that it is logical and clear.</p>	<p>Thank you very much for the suggestions.</p> <p>We have added a reference, i.e.:</p> <p><i>“Yoshikawa, N. (2020). Mechanism of microwave heating of matter. In: Horikoshi S., Serpone N. (eds) RF Power Semiconductor Generator Application in Heating and Energy Utilization, Springer: Singapore.”</i></p> <p>which is given in the Reference part in the purple-blocked phrases.</p>
Reviewer 3		
1.	<p>The authors describe synthesis of carbon nanodots (C-dots) from chicken bone and olive oil in a facile methods. While the results are interesting, I do have some major queries that need clarification:</p> <p>1. What is the actual precursor of the C-dots? Is it the bone? or is it the olive oil? the bone contains of 70% minerals (hydroxyapatite) with 30% collagen, whereas olive oil is of carbon majority. The author need to unambiguously prove</p>	<p>Thank you very much for the comments and suggestions from the reviewer. Moreover, thank you very much for the complement that the results are interesting.</p> <p>We believe that the precursor of the C-dots is the chicken bone waste powder, whereas the olive oil is used as the solvent. Although olive oil has abundant carbon atoms (oleic acid), its boiling point</p>

	<p>that the bone powder is important precursor/source of the C-dots. I am afraid that the bone (hydroxyapatite crystal) is just the catalyst. To test this hypothesis, perhaps the author should do a control experiment to synthesize C-dots with olive oil and hydroxyapatite.</p>	<p>is above 340 °C, which should not be affected by the microwave heating (i.e.: C-dots are not produced from the olive oil).</p> <p>The hydroxyapatite is the inorganic part of the chicken bone wastes. Hence, it should still be present in the powder. There are many literatures that investigate the combination of C-dots and hydroxyapatite as a nanocomposite. This might be the case here.</p> <p>Principally, conducting an experiment to synthesize C-dots using olive oil and hydroxyapatite is very interesting and we agree with the reviewer on this. However, we have not yet done so because of the current condition of the pandemic.</p>
<p>2.</p>	<p>On UV-Vis and PL spectra, the author should also provide the UV-Vis and PL spectra of the olive oil since the oil also absorb UV at around 250 nm. The PL spectra presented here also characteristics of the olive oil PL spectrum.</p>	<p>Thank you very much for the suggestions.</p> <p>We agree with the reviewer on adding some characterizations using UV-Vis and PL, especially for the olive oil. However, as we were preparing the samples for further UV-Vis and PL testing, the COVID 19 pandemic happened, such that only UV-Vis of olive oil could be conducted before all university activities are being halted until further notice. We were not able to do the PL characterization.</p> <p>The revised UV-Vis results may be observed in Figure 7 of the revised manuscript. We also have revised the UV-Vis results descriptions in the Results and Discussion part of the revised manuscript in pages 8-9 in yellow blocked sentences, i.e.:</p> <p><i>“Figure 7(a) shows the UV-Vis results of C-dots and olive oil. The</i></p>

		<p><i>C-dots and olive oil samples have two absorbance peaks, respectively. The sample of olive oil has absorbance peaks at wavelengths of 231 nm and 267 nm, and a sharp decrease of the absorbance after the shouldering peak. Moreover, the C-dots sample has two absorbance peaks as well at wavelengths of 234 nm and 267 nm with a tail that is extended to higher visible wavelengths. These absorbance peaks indicate the existence of two electronic transitions or excitations²⁹. The transition of the first and second peaks are $\pi \rightarrow \pi^*$ and $n \rightarrow \pi^*$, respectively³⁰. One or two absorbance peaks with absorbance profile extending to higher visible wavelengths indicates the formation of C-dots¹². Hence, the above UV-Vis results show differences between the C-dots solution and olive oil in their absorbance properties. There is a redshift on the first absorbance peak of the olive oil and C-dots, i.e.: from 231 nm to 234 nm. Besides that, the C-dots have a long tail extending to higher visible wavelengths, whereas the olive undergoes a sharp drop after the shouldering peak. Finally, the absorbance value of the C-dots is higher compared to the olive oil, especially at the shouldering peak.”</i></p> <p>Moreover, we have added an argument from a literature for the PL characterization in the Results and Discussion part of the revised manuscript in page 9 in the green-blocked sentences, i.e.:</p> <p><i>“According to Sena et al. (2017) extra virgin olive oil has a high intensity peak at wavelengths in</i></p>
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		<p><i>the range of 650 nm to 730 nm and relatively flat at other wavelengths. The aforementioned peak is of course in accordance with the second peak of the PL spectrum in Figure 7(b), which shows the porphyrin structure in the olive oil as the dominant compound.”</i></p>
<p>3.</p>	<p>On FTIR spectra, the presence of C=O and C=C band do not unambiguously proves the presence of C-dots, the olive oil itself (oleic acid) also have the C=C and C=O bonds. Again this study is lacking a control sample. Perhaps the author should do FTIR for olive oil and compare the result to the C-dots solution to identify is there any differences in the C=O and C=C band intensities.</p>	<p>Thank you very much for the critical comment by the reviewer.</p> <p>We do agree with the reviewer to conduct further FTIR test for olive oil. However, again, we have not been able to do so because of the current pandemic situation.</p> <p>But, we have added some arguments based on a literature study concerning the FTIR spectrum of olive oil, i.e.:</p> <p><i>“Based on the FTIR result of olive oil conducted by Labidi & Iddou (2007), the functional groups found in olive oil consist of C = O, C – H, and O – H. The C = O and C – H functional groups are also found in the C-dots sample in Figure 8. However, there are differences between these FTIR results. Hydroxyl (O – H) functional groups are not detected in the C-dots sample in Figure 8, whereas C = C functional groups are not detected in olive oil. This shows that olive oil has a very low intensity of C = C groups detected by FTIR. Hence, the C = C groups in Figure 8 should be the result of existing C-dots in the sample.”</i></p> <p>which is given in the Results and Discussion part of the revised manuscript in page 10 in red-blocked sentences.</p>
<p>4.</p>	<p>The SEM clearly shows hydroxyapatite crystallite of hexagonal structure. I</p>	<p>We agree that the SEM images do not show the C-dots particles.</p>

	<p>couldn't see where the C-dots are. To make sure, the authors are advised to check the composition analysis using SEM-XRF.</p>	<p>Hence, we acknowledged that we need to do further analysis using SEM-XRF, TEM, or HR TEM.</p> <p>However, we were not able to provide the above analysis in this manuscript because the facilities here are very limited. There is no TEM or SEM-XRF devices in our University. We have asked other universities and institutions for testing the samples using their TEM device, but we have to wait for quite a long queue (in months) and with expensive fee for testing the samples.</p> <p>Moreover, the current condition of the COVID 19 pandemic makes it also impossible to send or test samples as all universities are closed until further notice.</p> <p>Hence, we cannot provide TEM images at the moment. However, we have pointed this out in the Conclusions part in page 12 in blue-blocked sentence, i.e.:</p> <p><i>“Therefore, in order to obtain the size and morphology images of the C-dots particles, further characterizations using SEM-XRF, transmission electron microscope (TEM) or high resolution TEM (HR-TEM) should be conducted.”</i></p>
5.	<p>Some minor correction:</p> <p>a) page 8 line 42: your results show absorption at 234 and 267 nm, whereas in line 57 the author states that the C-dots absorption should be in the range of 269 - 360 nm. Which one is correct?</p>	<p>Thank you for pointing this out. We have revised this as given in Response 2 above.</p> <p>But for argument sake, the absorbance peaks at 234 nm and 267 nm are the UV-Vis results of this study, whereas the peak at 269 nm to 360 nm is the result of other article (paper) to be compared with our results. Hence, both are correct.</p>
6.	<p>b) page 9 line 4, the PL peak at 674 nm is claimed from the C-dots, but in line 10 it</p>	<p>Thank you very much for the</p>

	<p>is said that the peak is of porphyrin content in the olive oil. which one is correct?</p>	<p>correction.</p> <p>The PL peak at 674 nm is the porphyrin content that comes from the olive oil. We have revised in this in the Results and Discussion part of the revised manuscript in page 9 in grey-blocked sentences:</p> <p><i>“The PL spectrum shows a relation between the intensity and emission wavelength given in Figure 7(b). The PL spectrum of Figure 7(b) has two intensity peaks with different emission wavelengths, i.e.: 499.57 nm and 673.52 nm. The emission at 499.57 nm indicates a green wavelength (495 nm - 770 nm) so that the C-dots solution produced emits green light^{29,30}. According to Li et. al. (2017) and Fadli (2018) the second peak at 637.52 nm shows a structure of porphyrin, which is a part of many structures of chlorophyll. In this case, the porphyrin comes from the olive oil because olive oil contains chlorophyll compounds.”</i></p>
<p>7.</p>	<p>c) why the presence of C-dots in olive oil reduces the density of the solution? shouldn't it increases the density?</p>	<p>Thank you very much for the questions.</p> <p>We have explained in the Results and Discussion part in the revised manuscript in page 11 that the C-dots particles fill the spaces between the olive oil molecules, hence reducing the cohesion forces and increasing the distances of the olive oil molecules such that the density decreases.</p>
Reviewer 4		
<p>1.</p>	<p>The manuscript seems good, which is trying to obtain c-dot from waste material. However, there are some comments that should be considered.</p> <p>The author should show the originality of</p>	<p>Thank you very much for the comments by the reviewer. We appreciate the complement by the reviewer concerning our manuscript.</p>

	<p>the research instead of utilize waste material to get advanced material. How unique this waste material that influencing the resulted c-dot?</p>	<p>We have added some description concerning the uniqueness of the chicken bone wastes in the Introduction part in the revised manuscript in page 4 in the green-blocked sentences, i.e.:</p> <p><i>“Hence, the objectives of this study were to synthesize and characterize the C-dots from chicken bone wastes in olive oil. The current C-dots/hydroxyapatite nanocomposite described above is obtained by combining different initial or raw materials. However in this study, all of the raw materials, i.e.: collagen and hydroxyapatite are already contained in the chicken bone wastes, which shows a unique feature of a potential precursor material for producing C-dots with interesting bioactivity properties.”</i></p>
<p>2.</p>	<p>TEM image should be used to prove the existence of c-dot</p>	<p>Thank you very much for the comment.</p> <p>We agree with the reviewer that the SEM images are not enough, such that TEM is needed. However, we were not able to provide TEM images in this manuscript because TEM facilities here are still scarce. There is no TEM device in our University. We have asked other universities and institutions for testing the samples using their TEM device, but we have to wait for quite a long queue (in months) and with expensive fee for testing the samples.</p> <p>Moreover, the current condition of the COVID 19 pandemic makes it also impossible to send or test samples as all universities are closed until further notice.</p> <p>Hence, we cannot provide TEM images at the moment. However</p>

		<p>we have pointed this out in the Conclusions part in page 12 in blue-blocked sentence, i.e.:</p> <p><i>“Therefore, in order to obtain the size and morphology images of the C-dots particles, further characterizations using SEM-XRF, transmission electron microscope (TEM) or high resolution TEM (HR-TEM) should be conducted.”</i></p>
3.	<p>How do the authors validate the measurement of viscosity and surface tension?</p>	<p>Thank you very much for the question.</p> <p>So far, we have not yet found other results of the C-dots viscosity and surface tension measurement. Hence, we make sure that the calculations are done properly according to equations (1) and (2).</p>