



Sri Raharjo &lt;sraharjo@ugm.ac.id&gt;

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**Journal of the American Oil Chemists' Society - Account Created in ScholarOne Manuscripts**

1 message

**Pam Landman** <onbehalf@manuscriptcentral.com>

Sat, Mar 23, 2019 at 1:50 PM

Reply-To: plandman@aocs.org

To: sraharjo@ugm.ac.id

23-Mar-2019

Dear Prof. raharjo:

A manuscript titled Application of Response Surface Methodology for the Optimization of  $\beta$ -Carotene-loaded Nanostructured Lipid Carrier from Mixtures of Palm Stearin and Palm Olein (JAOCS-19-0107) has been submitted by Mrs. Miftakhur Rohmah to the Journal of the American Oil Chemists' Society.

You are listed as a co-author for this manuscript. The online peer-review system, ScholarOne Manuscripts, automatically creates a user account for you. Your USER ID and PASSWORD for your account is as follows:

Site URL: <https://mc.manuscriptcentral.com/jaocs>USER ID: [sraharjo@ugm.ac.id](mailto:sraharjo@ugm.ac.id)PASSWORD: [https://mc.manuscriptcentral.com/jaocs?URL\\_MASK=62164af8157c4450a70050f9001d90e1](https://mc.manuscriptcentral.com/jaocs?URL_MASK=62164af8157c4450a70050f9001d90e1)

You can use the above USER ID and PASSWORD to log in to the site and check the status of papers you have authored/co-authored. This password is case-sensitive and temporary. Please log in to <https://mc.manuscriptcentral.com/jaocs> to update your account information and change your password.

Thank you for your participation.

Sincerely,

Journal of the American Oil Chemists' Society Editorial Office

By submitting a manuscript to or reviewing for this publication, your name, email address, and affiliation, and other contact details the publication might require, will be used for the regular operations of the publication, including, when necessary, sharing with the publisher (Wiley) and partners for production and publication. The publication and the publisher recognize the importance of protecting the personal information collected from users in the operation of these services, and have practices in place to ensure that steps are taken to maintain the security, integrity, and privacy of the personal data collected and processed. You can learn more at <https://authorservices.wiley.com/statements/data-protection-policy.html>. In case you don't want to be contacted by this publication again, please send an email to [plandman@aocs.org](mailto:plandman@aocs.org).



Sri Raharjo &lt;sraharjo@ugm.ac.id&gt;

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**Journal of the American Oil Chemists' Society - Manuscript ID JAOCS-19-0107**5 messages

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**Pam Landman** <onbehalf@manuscriptcentral.com>

Sat, Mar 23, 2019 at 1:50 PM

Reply-To: plandman@aocs.org

To: miftakhurrohmah81@gmail.com, sraharjo@ugm.ac.id, chusnul@gadjahmada.edu, ronnymartien@ugm.ac.id

23-Mar-2019

Dear Mrs. Rohmah:

Your manuscript entitled "Application of Response Surface Methodology for the Optimization of  $\beta$ -Carotene-loaded Nanostructured Lipid Carrier from Mixtures of Palm Stearin and Palm Olein" has been successfully submitted online and is presently being given full consideration for publication in the Journal of the American Oil Chemists' Society.

Your manuscript ID is JAOCS-19-0107.

Please mention the above manuscript ID in all future correspondence or when calling the office with questions. If there are any changes in your affiliation, please log in to ScholarOne Manuscripts at <https://mc.manuscriptcentral.com/jaocs> 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/jaocs>.

Thank you for submitting your manuscript to the Journal of the American Oil Chemists' Society.

Sincerely,  
JAOCS Editorial Office

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**miftakhur rohmah** <miftakhurrohmah81@gmail.com>

Sun, May 5, 2019 at 7:19 AM

To: Sri Raharjo &lt;sraharjo@ugm.ac.id&gt;

Assalamualaikum.wr.wb.  
Bapak berikut balasan dari JAOCS

Terimakasih

----- Pesan yang diteruskan -----

Dari: **miftakhur rohmah** <miftakhurrohmah81@gmail.com>

Tanggal: Min, 5 Mei 2019 pukul 05.27

Subjek: Re: Journal of the American Oil Chemists' Society - Manuscript ID JAOCS-19-0107

Ke: Pam Landman &lt;plandman@aocs.org&gt;

Thank you for the information

Best regards  
Miftakhur rohmah

Pada tanggal Min, 5 Mei 2019 5:11 AM, Pam Landman <plandman@aocs.org> menulis:

Dear Dr. Rohmah:

Thank you for your query. Your manuscript is currently with reviewers, so please be assured that your manuscript is being evaluated. I apologize for the delay. We will be in contact once all reviews have been returned.

My very best regards,

Pam Landman

Journals Coordinator

JAOCS/JSD/Lipids

Email: [plandman@aoacs.org](mailto:plandman@aoacs.org)

Phone: 217-693-4822

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**From:** miftakhur rohmah <[miftakhurrohmah81@gmail.com](mailto:miftakhurrohmah81@gmail.com)>

**Sent:** Friday, May 3, 2019 6:10 PM

**To:** Pam Landman

**Subject:** Re: Journal of the American Oil Chemists' Society - Manuscript ID JAOCS-19-0107

To:

Professor James A. Kenar

Editor-in-Chief

**Journal of the American Oil Chemists' Society (JAOCS)**

Date: 04 Mei 2019

Dear Professor Kenar,

I would like to ask you regarding the status of my manuscript (ID number JAOCS-19-0107) which was submitted to the JAOCS on March 23, 2019.

Thank you

Best Regards,

Miftakhur Rohmah

On Sat, Mar 23, 2019 at 1:52 PM miftakhur rohmah <[miftakhurrohmah81@gmail.com](mailto:miftakhurrohmah81@gmail.com)> wrote:

Thank you so much

[Quoted text hidden]

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**miftakhur rohmah** <[miftakhurrohmah81@gmail.com](mailto:miftakhurrohmah81@gmail.com)>

Mon, Jun 17, 2019 at 8:47 PM

To: Sri Raharjo <[sraharjo@ugm.ac.id](mailto:sraharjo@ugm.ac.id)>

Bapak, berikut balasan dari editor Jaocs.

----- Pesan yang diteruskan -----

Dari: **Pam Landman** <[plandman@aoacs.org](mailto:plandman@aoacs.org)>

Tanggal: Sen, 17 Jun 2019 pukul 20.44

Subjek: RE: Journal of the American Oil Chemists' Society - Manuscript ID JAOCS-19-0107

Ke: miftakhur rohmah <[miftakhurrohmah81@gmail.com](mailto:miftakhurrohmah81@gmail.com)>

Dear Dr. Rohmah:

Thank you for your query. I apologize for the delay which is caused by one of the reviewers running late with their evaluation. We currently have one review in hand and I will check with the associate editor.

All my best regards,

## Pam Landman

Journals Coordinator/Production Editor

*JAOCS/Lipids/JSD*

Phone: +1 217-693-4822

Email: [plandman@aoacs.org](mailto:plandman@aoacs.org)

[www.aocs.org](http://www.aocs.org).

Visit our **journals hub** at <https://aocs.onlinelibrary.wiley.com> to stay up-to-date on the latest research. Be sure to publish your next manuscript with *JAOCS*, *Lipids* or *JSD*.

**From:** miftakhur rohmah <[miftakhurrohmah81@gmail.com](mailto:miftakhurrohmah81@gmail.com)>

**Sent:** Saturday, June 15, 2019 1:36 AM

**To:** Pam Landman <[plandman@aoacs.org](mailto:plandman@aoacs.org)>

**Subject:** Re: Journal of the American Oil Chemists' Society - Manuscript ID JAOCS-19-0107

To:

Professor James A. Kenar

Editor-in-Chief

Journal of the American Oil Chemists' Society (JAOCS)

Date: 15 Juni 2019

Dear Professor Kenar,

I would like to ask you regarding the progress review process of my manuscript (ID number JAOCS-19-0107) submitted to JAOCS on March 23, 2019.

I was informed by email on May 04, 2019 that my manuscript status was under review.

Thank you

Best Regards,

Miftakhur Rohmah

On Sat, May 4, 2019 at 6:10 AM miftakur rohmah <miftakurrohmah81@gmail.com> wrote:

To:

Professor James A. Kenar

Editor-in-Chief

**Journal of the American Oil Chemists' Society (JAOCS)**

Date: 04 Mei 2019

Dear Professor Kenar,

I would like to ask you regarding the status of my manuscript (ID number JAOCS-19-0107) which was submitted to the JAOCS on March 23, 2019.

Thank you

Best Regards,

Miftakur Rohmah

On Sat, Mar 23, 2019 at 1:52 PM miftakur rohmah <miftakurrohmah81@gmail.com> wrote:

Thank you so much

Sab, 23 Mar 2019 pukul 14.50 Pam Landman <onbehalfof@manuscriptcentral.com> menulis:

[Quoted text hidden]

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**miftakur rohmah** <miftakurrohmah81@gmail.com>  
To: Sri Raharjo <sraharjo@ugm.ac.id>

Mon, Jun 17, 2019 at 9:41 PM

Bapak saya belum membalas emailnya ke jaocs, apakah perlu sy menanyakan kemungkin waktu keputusan mereka atau bagaimana pak ?

Mohon masukannya, terima kasih

[Quoted text hidden]

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**miftakur rohmah** <miftakurrohmah81@gmail.com>  
To: Sri Raharjo <sraharjo@ugm.ac.id>

Tue, Jun 18, 2019 at 8:35 PM

Bapak ini balasan dari jaocs

----- Pesan yang diteruskan -----

Dari: **Pam Landman** <[plandman@aocs.org](mailto:plandman@aocs.org)>

Tanggal: Sel, 18 Jun 2019 pukul 20.16

Subjek: RE: Journal of the American Oil Chemists' Society - Manuscript ID JAOCS-19-0107

Ke: miftakhur rohmah <[miftakhurrohmah81@gmail.com](mailto:miftakhurrohmah81@gmail.com)>

Dear Dr. Rohmah:

Thank you. The associate editor has been in contact with the reviewer. While I cannot give you an exact date, we should have the review back within the next week.

I hope this information is of help.

Best regards,

Pam

## **Pam Landman**

Journals Coordinator/Production Editor

*JAOCS/Lipids/JSD*

Phone: +1 217-693-4822

Email: [plandman@aocs.org](mailto:plandman@aocs.org)

[www.aocs.org](http://www.aocs.org).

Visit our **journals hub** at <https://aocs.onlinelibrary.wiley.com> to stay up-to-date on the latest research. Be sure to publish your next manuscript with *JAOCS*, *Lipids* or *JSD*.

**From:** miftakhur rohmah <[miftakhurrohmah81@gmail.com](mailto:miftakhurrohmah81@gmail.com)>

**Sent:** Monday, June 17, 2019 10:14 PM

**To:** Pam Landman <[plandman@aocs.org](mailto:plandman@aocs.org)>

**Subject:** Re: Journal of the American Oil Chemists' Society - Manuscript ID JAOCS-19-0107

Dear Professor Kenar,

Thank you for your kind reply, It would be very appreciated if there is foreseeable date for feedback of my article, as this is related to my doctoral defense scheduling

Thank you

Best Regards,

On Sun, May 5, 2019 at 5:11 AM Pam Landman <[plandman@aoacs.org](mailto:plandman@aoacs.org)> wrote:

Dear Dr. Rohmah:

Thank you for your query. Your manuscript is currently with reviewers, so please be assured that your manuscript is being evaluated. I apologize for the delay. We will be in contact once all reviews have been returned.

My very best regards,

Pam Landman

Journals Coordinator

JAOCS/JSD/Lipids

Email: [plandman@aoacs.org](mailto:plandman@aoacs.org)

Phone: 217-693-4822

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**From:** miftakhur rohmah <[miftakhurrohmah81@gmail.com](mailto:miftakhurrohmah81@gmail.com)>

**Sent:** Friday, May 3, 2019 6:10 PM

**To:** Pam Landman

**Subject:** Re: Journal of the American Oil Chemists' Society - Manuscript ID JAOCS-19-0107

To:

Professor James A. Kenar

Editor-in-Chief

**Journal of the American Oil Chemists' Society (JAOCS)**

Date: 04 Mei 2019

Dear Professor Kenar,

I would like to ask you regarding the status of my manuscript (ID number JAOCS-19-0107) which was submitted to the JAOCS on March 23, 2019.

Thank you

Best Regards,

Miftakhur Rohmah

On Sat, Mar 23, 2019 at 1:52 PM miftakhur rohmah <[miftakhurrohmah81@gmail.com](mailto:miftakhurrohmah81@gmail.com)> wrote:

Thank you so much

Sab, 23 Mar 2019 pukul 14.50 Pam Landman <[onbehalf@manuscriptcentral.com](mailto:onbehalf@manuscriptcentral.com)> menulis:

[Quoted text hidden]





Sri Raharjo &lt;sraharjo@ugm.ac.id&gt;

**Fwd: Journal of the American Oil Chemists' Society - Decision on Manuscript ID JAOCS-19-0107**

1 message

**miftakhur rohmah** <miftakhurrohmah81@gmail.com>  
To: Sri Raharjo <sraharjo@ugm.ac.id>

Sat, Jul 6, 2019 at 4:47 AM

Assalamualaikum wr wb

Bapak berikut hasil revisi manuscripnya, saya akan mencoba memperbaiki, hari senin saya diskusi dengan bapak

Terima kasih,

Rohmah

----- Pesan yang diteruskan -----

Dari: **Suzana Ferreira-Dias** <[onbehalf@manuscriptcentral.com](mailto:onbehalf@manuscriptcentral.com)>

Tanggal: Sab, 6 Jul 2019 pukul 02.25

Subjek: Journal of the American Oil Chemists' Society - Decision on Manuscript ID JAOCS-19-0107

Ke: <[miftakhurrohmah81@gmail.com](mailto:miftakhurrohmah81@gmail.com)>

05-Jul-2019

Dear Mrs. Rohmah:

Manuscript ID JAOCS-19-0107 entitled "Application of Response Surface Methodology for the Optimization of  $\beta$ -Carotene-loaded Nanostructured Lipid Carrier from Mixtures of Palm Stearin and Palm Olein" that you submitted to the Journal of the American Oil Chemists' Society, has been reviewed. The comments of the reviewer(s) are included at the bottom of this letter.

The reviewer(s) suggest some revisions to your manuscript. Therefore, I invite you to respond to the reviewer(s) comments and submit a revision.

To revise your manuscript, click here \*\*\* 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/jaocs?URL\\_MASK=b7aafb6d2e47478fa763568a10b78033](https://mc.manuscriptcentral.com/jaocs?URL_MASK=b7aafb6d2e47478fa763568a10b78033) or log into <https://mc.manuscriptcentral.com/jaocs> 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 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. Please also highlight the changes to your manuscript within the document by using the track changes mode in MS Word or by using bold or colored text.

Once the revised manuscript is prepared, you can upload it and submit it through your Author Center. Please note that effective January 2018, the in-text citations and reference list style have been updated to (Author name, year) in text and alphabetical order in the reference list. If you have not already done so, please format these items as noted at [https://pericles.pericles-prod.literatunonline.com/page/journal/15589331/homepage/forauthors.html#\\_4.\\_PREPARING\\_YOUR](https://pericles.pericles-prod.literatunonline.com/page/journal/15589331/homepage/forauthors.html#_4._PREPARING_YOUR)

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 comments by including a point-by-point response to the reviewer's comments. You may also provide these responses in a word processing document which you can upload with your manuscript files. Failure to provide a pointwise response will result in the delay of the review of your revision.

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

Because we are trying to facilitate timely publication of manuscripts submitted to the Journal of the American Oil Chemists' Society, your revised manuscript should be uploaded as soon as possible. If it is not possible for you to

submit your revision within 90 days, we may have to consider your paper as a new submission.

Once again, thank you for submitting your manuscript to the Journal of the American Oil Chemists' Society. I look forward to receiving your revision.

Sincerely,  
Dr. Suzana Ferreira-Dias  
Associate Editor, Journal of the American Oil Chemists' Society  
[suzanafdias@mail.telepac.pt](mailto:suzanafdias@mail.telepac.pt)

If you feel that your paper could benefit from English language polishing, you may wish to consider having your paper professionally edited for English language by a service such as Wiley's at <http://wileyeditingservices.com>. Please note that while this service will greatly improve the readability of your paper, it does not guarantee acceptance of your paper by the journal.

Reviewer(s)' Comments to Author:

Reviewer: 1

Comments to the Author

The manuscript entitled "Application of Response Surface Methodology for the Optimization of  $\beta$ -Carotene-loaded Nanostructured Lipid Carrier from Mixtures of Palm Stearin and Palm Olein" reports the use of response surface methodology, Box-Behnken design to optimize the formulation of  $\beta$ -Carotene-NLC by varying palm stearin fraction ratio, lipid:surfactant ratio and lipid + surfactant:water ratio. Several analysis were performed for  $\beta$ Carotene-NLC characterization, namely particle size, polydispersity index, FTIR, X-ray diffraction and transmission electron microscopy.

The work led to interesting results. Nevertheless, the authors should revise some issues before the manuscript could be accepted.

I do recommend a meticulous revision of the manuscript. There are a few misprints all over the document as well as some sentences that should be rewritten for clarity. Some examples are listed below:

- P.1, L.55 and L.57 – write "( $\beta$ C-NLC)" instead of "(NLC)"
- P.2, L.9 – add a space between "the combination"
- P.2, L.11 – write "responses concerning ...."
- P.2, L.14 – add a space between "polydispersity index"
- P.2, L.25 – write "and" before "an encapsulation"
- P.4, L.27 – remove "of" before "published"
- P.4, L.39 – add a comma after "So far" and remove "published". After "palm oil" write "has been published"
- P.5, L.57 – remove the parenthesis before "was" and add it after "Merck"
- P.6, L.15 – write "in the blend of PS and PO" instead of "in PS and PO the mixture"
- P.6, L.17 – remove "molten"
- P.7, L.17 – "wavelength" is a single word
- P.9, L. 50 – add "limited" before "number"
- P.10, L.7 – Replace "Figure 2" by "Figure 1"
- P.10, L.10 – There is no Table 4 in the manuscript
- P.13. – "wavenumber" is a single word. Correct it along the manuscript.
- P.13, L.33 – write "wavenumber range" instead of "wavenumber area"

"Abstract"

In the manuscript there is no reference to the composition of the optimized formulation. Please, add this information to the text, namely, to the abstract.

- P.2, L.11 – write "(X3)" after (lipid + surfactant):water ratio
- P.2, L.9 and L.11 – X1, X2 and X3 are expressed as (% w/w). Provide this information.

"Materials and Methods"

- Since  $\beta$ -carotene is a labile compound, easily degraded by heat, light and oxygen, it would be interesting to carry out stability assays for  $\beta$ -carotene along time (e.g., for 15 days).

- There is no reference to the number of replicate measurements performed for each analysis. Add this information.

P.6, L.12 – The concentration of  $\beta$  carotene was 0.025%. Was it expressed as %(w/w), %(w/v) or %(v/v)?

P.6, L.22- rewrite the sentence as "24000 rpm for 30 min using a high speed homogenizer (IKA....."

P.6, L.59 – instead of "aquabidest" write "double distilled water"

P.7, L.8-17 – The encapsulation efficiency was evaluated by analysing the unloaded  $\beta$ -carotene in a UV-VIS spectrophotometer at 454 nm. I suppose a calibration curve was used for  $\beta$ -carotene quantification. Add this information to the manuscript.

P.7. – Provide the equation for encapsulation efficiency calculation.

P.7, L.10 – replace "ml" by "mL". Correct it along the text.

P.8 and P.9 – number the equations.

P8, L.53 – write “per diffusion area” instead of “per area diffusion”

P9, L.22 – write t (for time) in lower case

P9, L.24 – rename the subtopic “Data analysis” as “Statistical Analysis”

#### “Results and discussion”

- Provide the values of R<sup>2</sup> adjusted for the models described by equations 1 to 3.  
 - According to the Box-Behnken design (Table 2), three replicates of the center points were carried out (runs 13 to 15), which led to experimental responses with high variability, namely for Y1 (values ranging from 99 to 503 nm) and Y4 (values between 61 and 87%). Therefore, more replicates of the center points would be recommended. Please, comment this issue.

#### “Tables and Figures”

Table 2 – Remove “experimental” after “Box-Behnken”. Replace comma by point in the values of standard deviation. In Table legend, identify the dependent and the independent variables and add the information that results are presented as mean ± standard deviation. Provide the number of replicate measurements performed (n value).

Table 3 – What was the composition of the optimized formulation regarding PS fraction ratio, LS ratio and LS/water ratio? Add this information to table legend.

Figure 1 – Identify the plots as A, B, C, and D for Particle size, Polydispersity index, Zeta potential and EE (%), respectively.

#### “References”

Revise the list of references. There are several published works cited in the text that are missing in the references list, namely:

P.2, L.45 – Bach & Rohmer, 2016 ; P.5, L.16 – Yolmen & Jafari, 2017; P.5, L.25 – Pimentel-Moral et al., 2019; P.8, L.21 – Thatipamula et al., 2011; P.8, L.21 – Griesser et al., 2018; P.9, L.51 – Zhang et al., 2010  
 P.10, L.51 - Singh et al., 2017; P.10, L.56 - Zhang et al., 2011; P.15, L.36 – Han et al., 2008

Reviewer: 2

#### Comments to the Author

The paper presents the stabilization study of b-carotene using lipid nanostructures as carriers. It is an interesting approach to protect unstable bioactives. In my opinion, the text should be improved in order to be ready for publication.

1. Firstly, a general review to correct spelling and English errors is needed.
2. It would be more efficient for the reader to use the decoded variables in the text and Table 2 (instead of Y2 use EE, e.g.). This is obvious in the abstract, where the name of independent and response variables is enough.
3. page 6, line 6. Which was the ratio mass of b-carotene/mass of lipids used?
4. page 7. How was EE calculated? Is this the mass of b-carotene per mass of particles? Or it is the percentage of the mass of b-carotene added that was effectively entrapped in the particles?
5. page 13, lines 9-11. The explanation for the absence of the endothermic peak in bC-NLC is not clear.
6. page 15. Study of in vitro diffusion
  - 6.1. This study was performed with various types of samples containing b-carotene. Here, it is not clear how were prepared the b-carotene in emulsion samples (bC-E).
  - 6.2. Results are presented in terms of “diffused of b-carotene” over time (figure 6A) and flux of b-carotene (figure 6B). Here the units are not correct in figure 6B or in figure 6A. It must be clarified in which figure is presented the flux and in which figure is the the mass of b-carotene released over time.
  - 6.3. The methodology for diffusion experiments described in page 8, indicates that “the donor compartment was filled with 2ml sample+ 10ml buffer...”. The question is, what was the overall mass of b-carotene on those 2 ml of sample? Was it the same for bC-NLC, bC-E, bC-T and bC-PBS samples? It should be the same, otherwise the driving force for diffusion is different, and the flux results cannot be compared. The authors should take that this into account.

#### Associate Editor Comments to Author

Associate Editor

Comments to the Author:

Dear Prof. Sri Raharjo,

First, I wanted to apologize for the great delay in the revision of this manuscript. The manuscript is under the scope of the Journal of the American Oil Chemists' Society but, according to reviewers' opinion and mine, it is not suitable for publication in this form and a major revision is suggested.

In addition to the comments of the reviewers, I also have the following comments:

### General comments

- 1) The rationale of your work and the potential technological/pharmaceutical applications of the beta-carotene-loaded nanostructured lipid carrier should be better explained.
- 2) The objectives of the in vitro diffusion study should be also presented.
- 3) Neither in the abstract nor in the text, the conditions to obtain the "optimum formulation" are presented. You say (Page 12, l. 24): "The confirmation results for the optimum conditions are presented in Table 3". However, in Table 3, you just have "Table 3. Comparison of the observed and predicted values in the NLC prepared under predicted optimum conditions". I could not find the optimum conditions. Please add this information to the manuscript.
- 4) How did you find the best conditions to get the optimal formulation?
- 5) The model equations fitted to the experimental data-points should only consider the significant terms (linear, quadratic and/or linear interactions) of the factors and NOT all the factors. You must present in the manuscript the significance level of the effects, select only those that are significant and after fit a new polynomial model considering only those that are significant. Instead of presenting the model equations along the manuscript, I suggest you could put all in a Table (together with p value, R<sup>2</sup>, adjusted R<sup>2</sup>). It will be easier for the reader to find the equations in the table than in the text. In addition, the meaning of the factors A, B, and C should be presented in the heading of the table.
- 6) The factors in the response surfaces in Fig 1 are in coded values? You must indicate it in the legend.
- 7) Along the manuscript, you never refer to the shape of the response surfaces and only make comments about the increase in a factor and the corresponding effect on the response. You should comment about the shape of each response surface- some of them seem to be convex with a maximum in the experimental domain, others seem to be saddle-like surfaces.
- 8) The results should be presented in SI units

### Specific comments:

Page 3, L. 6-7, you say: "Absorption of  $\beta$ -carotene has been found to be inefficient and highly varied due to its low solubility (C Log P = 17.62)..."

Low solubility in what solvent? I suppose it is in water because of the definition of the calculated Log P (C Log P), where P is the partition coefficient in the system octanol/water. If you want to refer the Log P of beta-carotene, you must define it.

Page 5, L. 21: Since candesartan cilexetil and ifosfamide are drugs to reduce blood pressure and an anti-cancer chemotherapy drug, respectively, and JAOCS is not a Pharmaceutical Journal, you should rewrite the sentence because most of the readers do not know what these compounds are for.

Along the manuscript, please replace "triglyceride(s)" by "triacylglycerol(s)".

Page 5, Section "Experimental design"- Table 1 should be presented here and not in the Results section.

Page 6, L. 58: Please replace "aquabidest" by "double distilled water".

Page 8- Study in vitro diffusion: in the method followed, you used buffers with different pH values (6.8 and 7.4) while in the corresponding section in Results, you mention pH 7. Please clarify/correct this. Also, the composition, molarity or ionic strength of the buffers used should be indicated.

Equation 1: something is wrong because the expression you use as the "amount of substance concentration in the first sampling" is in microg/mL while the expression  $C_n.V$  is in microgram. Also, how can you use an expression represented by an addition of multiple values (from  $i = 1$  to  $n-1$ ) as the "amount of substance concentration in the first sampling"?

Page 9, line11: You did not use a multiple linear regression but a non-linear regression because (i) you have a three-level design, which allows fitting curved models, and (ii) all the equations presented to describe the response surfaces are second-order polynomials. Please correct it.

Page 11, lines 26.27: the following sentence is not correct: "There was no statistically significant difference between each variable and PDI value.". Do you mean that there is no significant effect of each factor on the PDI value? Please correct it!

Table 2: the meaning of each factor X1, X2 and X3, and of the responses Y1, Y2, Y3 and Y4, must be added to the heading of this table.

Table 4 is missing but is referred in page 10, line 9.

Fig. 6- A: Why did you use a log scale? Please correct the yy' axis title to "Cumulative amount of diffused beta-carotene (microg/cm<sup>2</sup>).

I hope these comments will help you to improve your manuscript.

Best regards,

Suzana Ferreira-Dias



Sri Raharjo &lt;sraharjo@ugm.ac.id&gt;

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**Journal of the American Oil Chemists' Society - Manuscript ID JAOCS-19-0107.R1**1 message

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**Pam Landman** <onbehalf@manuscriptcentral.com>

Sun, Aug 11, 2019 at 11:12 PM

Reply-To: plandman@aocs.org

To: miftakhurrohmah81@gmail.com, sraharjo@ugm.ac.id, chusnul@gadjahmada.edu, ronnymartien@ugm.ac.id

11-Aug-2019

Dear Mrs. Rohmah:

Your revised manuscript entitled "Application of Response Surface Methodology for the Optimization of  $\beta$ -Carotene-loaded Nanostructured Lipid Carrier from Mixtures of Palm Stearin and Palm Olein" has been successfully submitted online and is presently being given full consideration for publication in the Journal of the American Oil Chemists' Society.

Your manuscript ID is JAOCS-19-0107.R1.

Please mention the above manuscript ID in all future correspondence or when calling the office with questions. If there are any changes in your affiliation, please log in to ScholarOne Manuscripts at <https://mc.manuscriptcentral.com/jaocs> 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/jaocs>.

Thank you for submitting your manuscript to the Journal of the American Oil Chemists' Society.

Sincerely,  
JAOCS Editorial Office



Sri Raharjo &lt;sraharjo@ugm.ac.id&gt;

**Fwd: Journal of the American Oil Chemists' Society - Decision on Manuscript ID JAOCS-19-0107.R1**

3 messages

**miftakhur rohmah** <miftakhurrohmah81@gmail.com>  
To: Sri Raharjo <sraharjo@ugm.ac.id>

Sat, Oct 19, 2019 at 9:22 PM

Assalamualaikum.wr.wb.

Bapak berikut ada dapat email balasan dari JAOCS.

Mohon maaf Bapak, saya pulang ke samarinda besok. saya minta ijin bisa konsultasinya lewat email.

Hari senin akan saya perbaiki dan setelah selesai saya akan kirim email ke Bapak.

Bapak saya juga minta ijin kalau boleh untuk proof read ke ugm untuk manuscript yg sdh diseminarkan di AFC. Kalau boleh surat permohonannya sy titip di Mb Riris untuk bisa minta tandatangan jenengan.

Terima kasih pak.

Miftakhur Rohmah

----- Forwarded message -----

From: **Suzana Ferreira-Dias** <onbehalf@manuscriptcentral.com>

Date: Sat, Oct 19, 2019 at 8:45 PM

Subject: Journal of the American Oil Chemists' Society - Decision on Manuscript ID JAOCS-19-0107.R1

To: <miftakhurrohmah81@gmail.com>

19-Oct-2019

Dear Mrs. Rohmah:

Revised Manuscript ID JAOCS-19-0107.R1 entitled "Application of Response Surface Methodology for the Optimization of  $\beta$ -Carotene-loaded Nanostructured Lipid Carrier from Mixtures of Palm Stearin and Palm Olein" that you submitted to the Journal of the American Oil Chemists' Society, has been reviewed. The comments of the reviewer(s) are included at the bottom of this letter.

The reviewer(s) suggest further minor revisions to your manuscript. Therefore, I invite you to respond to the reviewer(s)' comments and revise your manuscript.

To revise your manuscript, click here \*\*\* 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/jaocs?URL\\_MASK=09f56df85ab94490ad3a5694200f1dd6](https://mc.manuscriptcentral.com/jaocs?URL_MASK=09f56df85ab94490ad3a5694200f1dd6) or log into <https://mc.manuscriptcentral.com/jaocs> 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 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. Please also highlight the changes to your manuscript within the document by using the track changes mode in MS Word or by using bold or colored text.

Please note that effective January 2018, the in-text citations and reference list style have been updated to (Author name, year) in text and alphabetical order in the reference list. If you have not already done so, please format these items as noted at [https://pericles.pericles-prod.literatumonline.com/page/journal/15589331/homepage/forauthors.html#\\_4.\\_PREPARING\\_YOUR](https://pericles.pericles-prod.literatumonline.com/page/journal/15589331/homepage/forauthors.html#_4._PREPARING_YOUR)

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). Failure to provide a point-by-point response will result in the delay of the review of your revised

manuscript.

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

Because we are trying to facilitate timely publication of manuscripts submitted to the Journal of the American Oil Chemists' Society, your revised manuscript should be uploaded as soon as possible. If it is not possible for you to submit your revision within six weeks, we may have to consider your paper as a new submission. Should you need more time, please contact me to request an extension.

Once again, thank you for submitting your manuscript to the Journal of the American Oil Chemists' Society. I look forward to receiving your revision.

Sincerely,  
Dr. Suzana Ferreira-Dias  
Associate Editor, Journal of the American Oil Chemists' Society  
[suzanafdias@mail.telepac.pt](mailto:suzanafdias@mail.telepac.pt)

Reviewer(s)' Comments to Author:

Reviewer: 1

Comments to the Author

The revised manuscript entitled "Application of Response Surface Methodology for the Optimization of  $\beta$ -Carotene-loaded Nanostructured Lipid Carrier from Mixtures of Palm Stearin and Palm Olein" has significantly improved in comparison with the first version.

Nevertheless, a revision of the text is still required in order to correct spelling and grammatical errors.

Reviewer: 2

Comments to the Author

The authors have answered the questions raised previously and have changed the text accordingly.

The following minor revisions should be carried out:

- page 2, line 22, change the text to " The formulations were..."
- page 6, line 34, change the text to "A calibration..."
- page 6, line 36, the meaning of y and x could be indicated directly in the equation
- page 7, lines 51-57, the text "An in vitro franz horizontal diffusion cells assay was used to evaluate the release profile of  $\beta$ C-NLC. Performed using a cell membrane (cut off 8000–10,000 Da). The mucin-coated membrane (obtained from porcine stomach)..." should be rephrased, for example to " An in vitro franz horizontal diffusion cells assay was used to evaluate the release profile of  $\beta$ C-NLC. The mucin-coated membrane (obtained from porcine stomach), with a cut off 8000–10,000 Da, ..."
- page 8, lines 35-36, the meaning of y and x could be indicated directly in the equation

Associate Editor Comments to Author

Associate Editor

Comments to the Author:

Dear Dr. Sri Raharjo,

First, I wanted to apologize for the great delay in the revision of this manuscript.

Thank you for resubmitting the manuscript JAOCS-19-0107.R1 to the Journal of the American Oil Chemists' Society. The quality of the manuscript has greatly improved, and it deserves to be published in JAOCS. However, there are some minor points (most of them misprints) that need to be corrected before publication.

In addition to the corrections suggested by the reviewers, please consider the following comments:

- 1) In the abstract and in part of the text, you use X1, X2 and X3 for the tested factors. However, in pages 10-12, you also use A, B, and C for the same factors. Please use always the same symbols.
- 2) Page 5, line 14: please correct "Merck it Darmstadt" by "Merck, Darmstadt".
- 3) Page 10, line 11: please replace "values higher than other model" by "values higher than for other models".
- 4) Page 10, lines 12-13: The following sentence is wrong: "Among the suggested models, only parameters of particle size and EE had significant effect ( $p < 0.05$ )." Particle size and EE are responses and not parameters. Please delete this sentence.
- 5) Page 10, lines 20-21: The sentence "The interaction responses of polynomial equations produced by the experimental designs were shown in Table 3." Is not correct.



You should say: "The linear, quadratic and interaction coefficients of each polynomial second-order model describing each response are shown in Table 3."

6) Page 10, lines 18-28: The following sentence is not completely correct: "The positive values in the regression equation indicates beneficial effects of optimization and negative values indicates inverse relationships between factors and responses (Mourabet et al.,2017)."

In fact, a positive linear coefficient means that the increase in this factor promotes an increase in the response. Conversely, a negative linear effect on the response means that by increasing this factor, a decrease in the response is observed. Sometimes, a decrease in the response is desirable and not an increase. It depends on the study and its objective. Please correct the sentence accordingly.

7) Page 11, lines 18-19: You say: "An increased in palm stearin ratio resulted in increased the EE.". Why do you say this? If you look at the value of the Table 3, the linear coefficient for Palm stearin ratio (A) is negative (-4.3). Therefore, the opposite behavior will be observed.

8) Page 11, lines 32-33: You say "The PDI (Y2) and zeta potensial (Y3) responses had no significant effect ( $p>0.05$ ) on the models." We may have effects of the factors on the responses (e.e. PDI or Zeta potensial) and not effects of the responses on the models. What do you mean by this sentence?

9) Page 11, line 44: please replace " $\beta$ C-NLC was consisted of lipid and non-ionic surfactant" by " $\beta$ C-NLC consisted of lipid and non-ionic surfactant"

10) Please correct in the footnote of Table 4, "sterain" by "stearin".

I hope with my comments to help you to improve your manuscript.

Best regards,

Suzana Ferreira-Dias

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**Sri Raharjo** <sraharjo@ugm.ac.id>  
To: miftakhur rohmah <miftakhurrohmah81@gmail.com>

Sun, Oct 20, 2019 at 6:18 AM

Ya bisa diskusi lewat email.  
Untuk pengantar proof read manuscript berikutnya bisa titipkan ke bu Riris.

Tks  
SR.  
[Quoted text hidden]

---

**miftakhur rohmah** <miftakhurrohmah81@gmail.com>  
To: Sri Raharjo <sraharjo@ugm.ac.id>

Sun, Oct 20, 2019 at 6:28 AM

Ngih pak terima kasih  
[Quoted text hidden]



Sri Raharjo &lt;sraharjo@ugm.ac.id&gt;

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**Fwd: Journal of the American Oil Chemists' Society - Decision on Manuscript ID JAOCS-19-0107.R2**

1 message

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**miftakhur rohmah** <miftakhurrohmah81@gmail.com>  
To: Sri Raharjo <sraharjo@ugm.ac.id>

Wed, Oct 30, 2019 at 5:00 PM

----- Pesan yang diteruskan -----

Dari: **Silvana Martini** <onbehalf@manuscriptcentral.com>

Tanggal: Rab, 30 Okt 2019 pukul 03.19

Subjek: Journal of the American Oil Chemists' Society - Decision on Manuscript ID JAOCS-19-0107.R2

Ke: &lt;miftakhurrohmah81@gmail.com&gt;

29-Oct-2019

Dear Mrs. Rohmah:

Revised Manuscript ID JAOCS-19-0107.R2 entitled "Application of Response Surface Methodology for the Optimization of  $\beta$ -Carotene-loaded Nanostructured Lipid Carrier from Mixtures of Palm Stearin and Palm Olein" that you submitted to the Journal of the American Oil Chemists' Society, has been reviewed, and the associate editor has recommended acceptance.

However, before final acceptance of the manuscript, I must ask that you address the following questions and make the suggested modifications.

I believe that these items are required in order to help the reader to better understand and appreciate your work.

See comments below from Associate Editor

To revise your manuscript, click here \*\*\* 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/jaocs?URL\\_MASK=449a4e71b0fd4c319b6a1b4e82f6a275](https://mc.manuscriptcentral.com/jaocs?URL_MASK=449a4e71b0fd4c319b6a1b4e82f6a275) or log into <https://mc.manuscriptcentral.com/jaocs> 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 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. Please also highlight the changes to your manuscript within the document by using the track changes mode in MS Word or by using bold or colored text.

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 revision request comments in the space provided. You can use this space to document any changes you make to the manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your responses.

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Because we are trying to facilitate timely publication of manuscripts submitted to the Journal of the American Oil Chemists' Society, your revised manuscript should be uploaded as soon as possible. If it is not possible for you to submit your revision within six weeks, we may have to consider your paper as a new submission. Should you need more time, please contact me to request an extension.

Once again, thank you for submitting your manuscript to the Journal of the American Oil Chemists' Society. I look forward to receiving your revision.

Sincerely,  
Dr. Silvana Martini  
Senior Associate Editor, Journal of the American Oil Chemists' Society  
[silvana.martini@usu.edu](mailto:silvana.martini@usu.edu)

Reviewer Comments to Author:

Associate Editor Comments to Author

Associate Editor  
Comments to the Author:  
Dear Dr. Miftakhur Rohmah,

Thank you very much for the revised version of your manuscript (JAOCS-19-0107.R2). The comments from the reviewers and mine were correctly answered. Therefore, I'm pleased to inform you that your manuscript was accepted for publication in the Journal of the American Oil Chemists' Society. However, I still detected the following misprints that must be corrected prior to publication:

Abstract:  
Please correct "optimum formulation were" to "optimum formulation was"

Page 10, lines 35-36: Please replace the sentence: "...the increased in water content or decreased in lipid content. This phenomenon was not related to the increased of EE" by "...the increase in water content or decrease in lipid content. This phenomenon was not related to the increase of EE"

Best regards,

Suzana Ferreira-Dias



Sri Raharjo &lt;sraharjo@ugm.ac.id&gt;

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**Journal of the American Oil Chemists' Society - Manuscript ID JAOCS-19-0107.R3**1 message

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**Pam Landman** <onbehalf@manuscriptcentral.com>

Thu, Oct 31, 2019 at 2:06 PM

Reply-To: plandman@aocs.org

To: miftakhurrohmah81@gmail.com, sraharjo@ugm.ac.id, chusnul@gadjahmada.edu, ronnymartien@ugm.ac.id

31-Oct-2019

Dear Mrs. Rohmah:

Your revised manuscript entitled "Application of Response Surface Methodology for the Optimization of  $\beta$ -Carotene-loaded Nanostructured Lipid Carrier from Mixtures of Palm Stearin and Palm Olein" has been successfully submitted online and is presently being given full consideration for publication in the Journal of the American Oil Chemists' Society.

Your manuscript ID is JAOCS-19-0107.R3.

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

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Thank you for submitting your manuscript to the Journal of the American Oil Chemists' Society.

Sincerely,  
JAOCS Editorial Office



Sri Raharjo &lt;sraharjo@ugm.ac.id&gt;

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**Proof for Journal of the American Oil Chemists' Society article aocs12310 (JAOCS-19-0107.R3) is now available**

3 messages

**Princess Robie Balais** <aocsprod@wiley.com>

Wed, Nov 13, 2019 at 10:40 PM

To: sri raharjo &lt;sraharjo@ugm.ac.id&gt;

Cc: journals-eproofs@spi-global.com, prbalais@wiley.com, SPi-OPC@spi-global.com, aocsprod@wiley.com

Dear **sri raharjo**,The proof of your **Journal of the American Oil Chemists' Society** article **aocs12310** is now available for review at:<https://apps.spi-global.com/eProofing/VerifyTokenandAuthenticate.aspx?token=DRzRUOPkkEmRsoP902cjtQ&ChapterOrArticleOrBook=Article>

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Your article may also include queries, and these must be replied to using the system before the proof can be submitted. Once your changes are complete, submit the article after which no additional corrections can be made.

To avoid a delay in publication of your article, please complete your proof review and return your corrections within the next **48 hours**.

If you are unable to meet this deadline, if you encounter any problems, or if you have further questions, please contact the Journal Production Editor, Princess Robie Balais ([aocsprod@wiley.com](mailto:aocsprod@wiley.com)) and reference your article ID in all correspondence.

Best regards,

**the Journal of the American Oil Chemists' Society editorial team**

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**Sri Raharjo** <sraharjo@ugm.ac.id>

Thu, Nov 14, 2019 at 7:42 AM

To: miftakur rohmah &lt;miftakurrohmah81@gmail.com&gt;

Bu Miftakh

Ini sudah saya kerjakan proof reading yang diminta JAOCS. Ada 19 poin yang perlu dikonfirmasi. Sudah saya respon semua. Hasil akhirnya semua sudah saya submit kembali. Saya lampirkan juga hasil koreksi dalam bentuk pdf untuk diketahui Selanjutnya kita tunggu saja.

SR

[Quoted text hidden]

**aocs12310\_CorrectionsPDF.pdf**  
2212K

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**miftakur rohmah** <miftakurrohmah81@gmail.com>

Thu, Nov 14, 2019 at 8:05 AM

To: Sri Raharjo &lt;sraharjo@ugm.ac.id&gt;

Baik pak, terima kasih informasinya.

[Quoted text hidden]