OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
- More motivations for all involved roles in the review process
- Authors' satisfactions from the review process: Increases honesty between authors and reviewers
- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://sites.kowsarpub.com/kowsar/knowledgebase/category/tree.html#opr.html

Health Scope
Article DOI: 10.5812/jhealthscope.83067
Published in: Health Scope: 9(1); e83067

Peer Review Report for "Toxicity of Malathion and Diazinon Byproducts Generated Through the UV/Nano-Zn Process"

Author(s): Ramin Khaghani, Mohammad Reza Zare

Review Timeline:

Submit Date: 8 Aug 2018
Revised Date: 4 Jan 2019
Accepted Date: 7 Feb 2019

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | Revision (0)

19 Oct 2018

The title article is Suitable for the journal, but needs are a revision in all parts certainly.
- Introduction is weak and needs to be revised.
↵ What are the sources and effects of diazinon and malathion production in the environment?
↵ What are international and local standards of exposure to diazinon and malathion?
↵ What is the conventional method for diazinon and malathion removal?
↵ Why did you choose UV/nano-ZnO systems for toxicity assessment?
↵ Please add a literature review in the introduction part.
- The manuscript English language must not bear any error. Some sentences need to revise.
- Why Nitrosomonas and Nitrobacter bacteria were selected?
- Please add a statistical analysis method.
- Please add the method for calculating EC50and NOEC.
- Discussion is so weak and needs to generally revise.
↵ “The results show that diazinon is more toxic than malathion to both tested bacteria.” The evaluation of toxicity is not enough with EC50 , NOEC test. It usually needs to check-in bacterial cells level, before and after exposure.
↵ Why Nitrobacter is more sensitive than Nitrosomonas?

⫤ Please identify what is nano-ZnO toxicity in effluent? How are you justifying this toxicity is not from nano-ZnO particles?

REFEREE: Reviewer | **Revision (0)** 26 Oct 2018

Dear Editor my comments about the mentioned manuscript are as follows:
- Why didn't acidic pH in this study?
- -Please write abstract without multi-section, write it in one section.
- abstract is weak, improve it
- Mention to the few study related to this study in the introduction
- -The language of the manuscript should be improved further. Some sentences are grammatically incorrect.
- Material and methods show that the authors didn't the toxicity effect of nano-particles in solution.
- Is nano-particle removed after irradiation?
- Discussion is weak, mention and compare the obtained result with another study.
- A few good articles related to the nano- catalyst are in the Health Scope journal which can you mention.
- Revise references according to the journal.

Best regards

REFEREE: Associate Editor | **Revision (0)** 27 Oct 2018

1-The title article is Suitable for the journal, but needs revision in all parts certainly.
- Introduction is weak and needs to be revised.
- What are the sources and effectsofdiazinon and malathion production in the environment?
- What are international and local standards of exposure to diazinon and malathion?
- What is the conventional method for diazinon and malathion removal?
- Why did you choose UV/nano-ZnO systems for toxicity assessment?
- Please add a literature review in the introduction part.
- The manuscript English language must not bear any error. Some sentences need to revise.
- Why Nitrosomonas and Nitrobacter bacteria were selected?
- Please add a statistical analysis method.
- Please add the method for calculating EC50and NOEC.
- Discussion is so weak and needs to generally revise.
- "The results show that diazinon is more toxic than malathion to both tested bacteria." The evaluation of toxicity is not enough with EC50 , NOEC test. It usually needs to check-in the level of the bacterial cells, before and after exposure.
- Why Nitrobacter is more sensitive than Nitrosomonas?
- Please identify what is nano-ZnO toxicity in effluent? How are you justifying this toxicity is not from nano-ZnO particles?

2- Why didn't acidic pH in this study?
- -Please write abstract without multi-section, write it in one section.

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- Is nano-particle removed after irradiation?
- Discussion is weak, mention and compare the obtained result with other studies.
- A few good articles related to the nano- catalyst are in the Health Scope journal which can you mention the those.
- Revise references according to the journal.

Best regards

REFEREE: EIC | **Revision (0)** 2 Nov 2018

1-The title article is Suitable for the journal, but needs revision in all parts certainly.
- Introduction is weak and needs to be revised.
- What are the sources and effectsofdiazinon and malathion production in the environment?
- What are international and local standards of exposure to diazinon and malathion?
- What is the conventional method for diazinon and malathion removal?
- Why did you choose UV/nano-ZnO systems for toxicity assessment?
- Please add a literature review in the introduction part.
- The manuscript English language must not bear any error. Some sentences need to revise.
- Why Nitrosomonas and Nitrobacter bacteria were selected?
- Please add a statistical analysis method.
- Please add the method for calculating EC50and NOEC.
- Discussion is so weak and needs to generally revise.
- "The results show that diazinon is more toxic than malathion to both tested bacteria." The evaluation of toxicity is not enough with EC50 , NOEC test. It usually needs to check-in bacterial cells level, before and after exposure.
- Why Nitrobacter is more sensitive than Nitrosomonas?
- Please identify what is nano-ZnO toxicity in effluent? How are you justifying this toxicity is not from nano-ZnO particles?

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- -Please write abstract without multi-section, write it in one section.
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- Is nano-particle removed after irradiation?

- Discussion is weak, mention and compare the obtained result with another study.
- A few good articles related to the nano- catalyst are in the Health Scope journal which can you mention the those.
- Revise references according to the journal.

Best regards

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Journal: Health Scope
Manuscript ID: 83067
Title: Toxicity of malathion and diazinon byproducts produced through the UV/nano-Zn process
Revision: [0]

Dear Editor in Chief

Thank you for valuable comments of reviewers. Our responses to reviewers' comments (manuscript ID: 83067) are as follow. Please kindly consider that all comments have been responded.

Best regards
Corresponding author

Reviewers' Comments:

Reviewer 1:

- Why didn’t acidic pH in this study?
Reply: In this study we used Nitrobacter and Nitrosomonas in bioassay tests and such strains cannot tolerate acidic pH. Anyway, according to this comment we added this reason in the discussion section (page 9 paragraph 2) as an opportunity for future studies.

-Please write abstract without multi-section, write it in one section.
Reply: It was revised

- abstract is weak, improve it
Reply: It was revised

- Mention to the few study related to this study in introduction
Reply: The related studies were added at the end of paragraph 2 page 2.

-The language of the manuscript should be improved further. Some sentences are grammatically incorrect.
Reply: The whole of manuscript was revised grammatically.

- Material and methods show that the authors didn’t the toxicity effect of nao-particles in solution. Is nano-particle removed after irradiation?
Reply: the nanoparticles were removed before bioassay and this illustration was added at the end of paragraph 3, page 3.

- Discussion is weak, mention and compare the obtained result with other study.
Reply: It was revised (the added sentences were highlighted)

- A few good articles related to the nano- catalyst are in Health Scope journal which can you mention the those.
Reply: Reference numbers of 29-31 were added.

- Revise references according to the journal.

Reply: They were revised.

Reviewer 2:
The title article is Suitable for the journal, but need to revision in all parts certainly.
Reply: All parts of article were revised. The changes were highlighted.

- Introduction is weak and need to be revised.
Reply: It was revised. The changes were highlighted.

- What are the sources and effects of diazinon and malathion production in environment?
Reply: It was added in paragraph 1 page 2

- What are international and local standards of exposure to diazinon and malathion?
Reply: It was added in page 2 line 9.
- What is the conventional method for diazinon and malathion removal?
Reply: It was added in page 2 parabgraph 2.

- Why you choose UV/nano-ZnO systems to toxicity assessment?
Reply: The reason was written in page 2 paragraph 2.

- Please add literature review in introduction part.
Reply: It was added. The sentences were highlighted.

- The manuscript English language must not bear any error. Some sentence need to revise.
Reply: The whole of manuscript was revised.

- Why Nitrosomonas and Nitrobacter bacteria were selected?
Reply: It was added at the end of page 2 (highlighted sentence)

- Please add statistical analysis method.
Reply: It was added in final paragraph of page 4.

- Please add the method for calculating EC50 and NOEC.
Reply: It was added in final paragraph of page 4.

- Discussion is so weak and need to generally revise.
Reply: It was revised. The new sentences were highlighted.

- “The results show that diazinon is more toxic than malathion to both tested bacteria.” The evaluation of toxicity is not enough with EC50 , NOEC test. It usually needs to check in bacterial cells level, before and after exposure.
Reply: As it was written in “introduction” section, one of the fast and reliable toxicity methods is dehydrogenase enzyme assay using resazurin. This bioassay is based on the function of viable and active bacteria. So, this method is representative of bacterial cells level.

- Why Nitrobacter is more sensitive than Nitrosomonas?
Reply: It was added to page 8, paragraph 4.

- Please identify what is nano-ZnO toxicity in effluent? How are you justifying this toxicity is not form nano-ZnO particles?
Reply: The nano-ZnO was removed from the solution before the toxicity assessment. This illustration was added at the end of paragraph 3, page 3 (highlighted sentence).

Associate Editor's Comments:

Associate Editor 1:

1-The title article is Suitable for the journal, but need to revision in all parts certainly.
Reply: All parts of article were revised. The changes were highlighted.
- Introduction is weak and need to be revised.
Reply: It was revised. The changes were highlighted.

- What are the sources and effects of diazinon and malathion production in environment?
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Reply: In this study we use Nitrobacter and Nitrosomonas in bioassay tests and such strains cannot tolerate acidic pH. Anyway, according to this comment we add this reason in the discussion section (page 9 paragraph 2) as an opportunity for future studies.

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- Mention to the few study related to this study in introduction
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- A few good articles related to the nano- catalyst are in Health Scope journal which can you mention the those.
Reply: Reference numbers of 29-31 were added.

- Revise references according to the journal.
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EIC Decision:

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OPEN PEER REVIEW

Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (1) 6 Feb 2019

Dear editor

The article has been revised according to comments, So admission for acceptable in the journal.best regards.

REFEREE: Associate Editor | **Revision** (1) 6 Feb 2019

Dear editor

The article has been revised according to comments, So admission for acceptable in the journal.
Best regards

REFEREE: EIC | **Revision** (1) 7 Feb 2019

Dear author

The article has been revised according to comments, So admission for acceptable in the journal.
best regards