

**Review Form 1.7**

Journal Name:	<b>Chemical Science International Journal</b>
Manuscript Number:	<b>Ms_CSIJ_116912</b>
Title of the Manuscript:	<b>Preparation and Characterization of Phthaloyl Chitosan As a Novel Purifying Agent for Deltamethrin</b>
Type of the Article	<b>Original Research Article</b>

## Review Form 1.7

### PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p><b>Compulsory</b> REVISION comments</p> <ol style="list-style-type: none"><li>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</li><li>2. Is the title of the article suitable? (If not please suggest an alternative title)</li><li>3. Is the abstract of the article comprehensive?</li><li>4. Are subsections and structure of the manuscript appropriate?</li><li>5. Do you think the manuscript is scientifically correct?</li><li>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</li></ol> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"><li>1. Yes! Purifying agents for pesticides in agricultural applications is a very important topic of critic value to environmental concerns.</li><li>2. Yes.</li><li>3. Yes.</li><li>4. Yes, the structure of the manuscript is appropriate for this topic. I do suggest that in the Introduction section of the manuscript that the author includes some mention of current technology or research associated with sequestering deltamethrin. I understand that the point of this research is developing a novel agent, but contrasting this agent to current technology or practices would strengthen the impact of the paper significantly. Also, the author references Schiff bases without defining them or referencing them. Based on the broad appeal of this topic, it may be worthwhile to do so.</li><li>5. I do think there are significant issues in the presentation and interpretation of the data.<ol style="list-style-type: none"><li>a) In the results and discussion section, Zeta potential is not defined and the importance of this parameter is not addressed. Likewise, "PDI" in Table 1 is not defined or addressed.</li><li>b) The FTIR absorptions are mis-assigned. The band at 1712 cm<sup>-1</sup> is not an amine band, and is more likely a C=O stretch based on the intensity and location. To assign a C=O stretch at 1072 cm<sup>-1</sup> has no precedent that I am aware of, since such bands rarely absorb at less than 1600 cm<sup>-1</sup>.</li><li>c) The SEM images are interesting (Figure 5), but the author provides no interpretation. Any conclusions or thoughts on this data?</li><li>d) The GC data requires more explanation, as it is very difficult to follow the significance. It seems that in all cases, the standard (STD) has a wt/wt % of 100 %, but is this the concentration of the DM prior to treatment? If not, what is the concentration? All three concentrations of Ph-CS (B1, B2, and B3) seem to result in very similar concentrations of DM after treatment. How significant are these differences based on the initial DM concentration? Also, Chart 1's plot appears to be incorrect in showing the final DM concentration to be 0.051 when none of the data points show a concentration below 0.055. This GC data requires significant clarification since it is pivotal in justifying the effectiveness of the application.</li></ol></li></ol> <p>On a separate note, Figure 1 shows a reaction apparatus with two reflux condensers. In my experience, such a configuration is quite unusual. Is there a specific issue in this synthesis that requires excessive cooling of the vapours? If so, the author should mention it specifically.</p> <ol style="list-style-type: none"><li>6. With the exception of the suggested additions above, the references appear fine.</li></ol>	
<p><b>Minor</b> REVISION comments</p> <ol style="list-style-type: none"><li>1. Is language/English quality of the article suitable for scholarly communications?</li></ol>	<p>There is some editing required in the manuscript. There are several run-on sentences throughout the manuscript. Also, "N" and "O" in chemical names should be italicized (eg., <i>N,N</i>-dimethylformaldehyde).</p>	

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Optional/General comments		
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**PART 2:**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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