

Review Form 3

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	Ms_IRJPAC_122159
Title of the Manuscript:	Research Development and Future Aspects of Quantum dot and Perovskite Sensitized Solar Cells
Type of the Article	Minireview Article

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>The manuscript provides an insightful overview of "Research Development in Solar Cells", with a particular focus on Quantum dot and Perovskite Sensitized Solar Cells. I like the idea of the authors/authors' because this area of solar cells has bright prospect. What I dislike about the manuscript are</p> <ol style="list-style-type: none"> i. The organisation is poor and also poorly written ii. There are numerous errors in the manuscript which will make it difficult to understand iii. The explanation of the perovskite solar cell is not clear, I understand is a minireview but the authors can do better in explaining the structure and working principle of perovskite solar cells. <p>The manuscript has the potential to contribute significantly to the field of Quantum Dot and Perovskite solar cells, but it requires substantial revision to address the issues outlined. I recommend that the authors revise the manuscript according to these suggestions before it can be considered for publication.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>Yes</p>	
<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The abstract is fine</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Some revision needed</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<ol style="list-style-type: none"> 1. Grapheme Oxide Terminology (Page 3): In the sentence, "Counter electrode preparation with reduced grapheme oxide...", the term "grapheme oxide" is unclear. It is likely a typographical error, possibly meant to refer to "graphene oxide." Please clarify or correct this terminology to avoid confusion. 2. Better explanation of perovskite solar cells: Your explanation of perovskite solar cells structure and it working mechanism is not good enough. Try to review this section 3. Efficiency vs. Absorption in QDSSC: The sentence, "The efficiency of QDSSC can be tuned by the use of better band gap species, CdS, CdSe, and CdTe," raises a concern. It is unclear whether the authors are referring to the efficiency or the absorption properties of the QDSSC. A rephrasing of this sentence is recommended to clearly convey the intended meaning. 4. Counter Electrode Materials in Perovskite Solar Cells: In the section titled "Structure of Perovskite Sensitized Solar Cells," point (v) mentions gold as the conductor for the counter electrode. It is important to clarify whether gold is the only metal that can be used in this context. If other metals can be used, please rephrase this point to reflect that. 5. Clarification of Reported Efficiency (Page 3): The sentence, "Liu et al[53] reported the planar heterojunction perovskite solar cells by deposition method with 51.5% efficiency," seems to contain an unusually high efficiency figure. Please provide further clarification or correction of this value, as it appears to be an error. 	

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	<p>6. Conclusion Focus: The conclusion should focus on summarizing the key findings of the review rather than emphasizing the advantages of perovskite solar cells. A summary that encapsulates the overall insights and contributions of the review would strengthen the manuscript.</p> <p>7. Identification of Research Gaps: The review is somewhat open-ended and does not explicitly identify the gaps in the current research. For a more comprehensive mini-review, it would be beneficial to highlight the areas where further research is needed</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>-</p>	<p>The references are good</p>	
<p><u>Minor</u> REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Grammatical and Typographical Errors:</p> <p>There are numerous grammatical and typographical errors, particularly in the perovskite section, which significantly hinder comprehension. Even experts in the field may find it challenging to follow the text. It is strongly recommended that the manuscript be thoroughly proofread by someone with expertise in English language editing.</p>	
<p><u>Optional/General</u> comments</p>	<p>Please ensure that all revisions are carefully implemented and that the manuscript is thoroughly proofread before resubmission.</p>	

PART 2:

	<p>Reviewer's comment</p>	<p>Author's comment (if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</p>
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in detail)</i></p> <p>No</p>	

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