

Review Form 1.7

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_116982
Title of the Manuscript:	THEORETICAL STUDY OF INORGANIC CHARGE TRANSPORT LAYER OF PEROVSKITE SOLAR CELLS USING SCAPS SOFTWARE
Type of the Article	

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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>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>1. No, need modification. The comprehensive insights of this manuscript provided by the theoretical study of the inorganic charge transport layer of perovskite solar cells using SCAPS 1D software.</p> <p>2. Yes.</p> <p>3. No, the abstract is comprehensive but need to rewrite. The authors should give more clarity on the results obtained during the simulation. The novelty of the paper should be highlighted.</p> <p>4. Sections and subsections should be numbered like 1, 1.1, etc. Please check the flowchart of Figure 1, there might be spelling mistakes.</p> <p>5. No, need to revise. Compare simulation results with experimental data or theoretical predictions from literature to validate the model. Figure's resolution are very poor. Discuss limitations of the study and suggest areas for future research. Compare simulation results with experimental data or theoretical predictions from literature to validate the model. Highlight gaps in current knowledge and justify the need for the theoretical study.</p> <p>6. No of references are not enough. Include recent publications relevant to perovskite solar cells and charge transport layers. The reference style is not correct within the manuscript. There are no references given between the lines of the references, please recheck.</p> <ul style="list-style-type: none"> • De, A., Bhattacharjee, J., Chowdhury, S. R., & Roy, S. (2023). A Comprehensive Review on Third-Generation Photovoltaic Technologies. In Journal of Chemical Engineering Research Updates (Vol. 10, pp. 1–17). Avanti Publishers. • S. A. Moyez, S. Roy, Dual-step thermal engineering technique: A new approach for fabrication of efficient CH₃NH₃PbI₃-based perovskite solar cell in open air condition, <i>_Solar Energy Materials and Solar Cells_</i>, *(2018)*, 185, 2018, 145-152 <p>Bhattacharjee, J., & Roy, S. (2024). Review on green resources and AI for biogenic solar power. <i>Energy Storage and Conversion</i>, 2(1).</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>Grammar should be checked and quality may be improved for scholarly communications.</p>	
<p>Optional/General comments</p>	<p>Need to revised. My decision is - major revision.</p>	

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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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