

**Review Form 3**

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	Ms_PSIJ_124710
Title of the Manuscript:	<b>CdTe-Based Thin Film Solar Cells, Application, Semiconductor, Current Opinion in Materials and Treatment Science</b>
Type of the Article	<b>Review Article</b>

**Review Form 3**

**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	<b>Reviewer's comment</b>	<b>Author's Feedback</b> (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
	<ol style="list-style-type: none"> <li>1. Please make this sentence "Due to the manufacturing process, silicon-based solar cells have conquered the marketplace, but their cost is not economic" better</li> <li>2. Please use more scientific words in your abstract. For example, "CdS window layer could be <b>put</b> on top of a ZnO buffer layer" replace put with a scientific term</li> <li>3. Schematic 1 can be replaced with a image with different shades or colors for each layers, could be a 3D image, or have thickness proportional to actual devices</li> <li>4. Figure 2 mentions wafer based and thin film solar cells. Explain how they are different in terms of design/fabrication and performance.</li> <li>5. Use subscripts/ superscripts while writing any chemical formula (ex: Sb<sub>2</sub>Se<sub>3</sub>) and units</li> <li>6. Write the full form of PCE and other terms</li> <li>7. You have used this line twice "These days, the top ten manufacturers only employ this thin-film technology"</li> <li>8. "Because of its <b>strength</b>, chemical stability"—strength? Did you mean robustness/ mechanical property/ hardness/material property? Please use proper terminologies</li> <li>9. Image resolution needs be increased. Image aspect ratios are off in some cases (Fig. 13)</li> <li>10. I see both figure and schematics. Please check in guidelines if both terms are allowed.</li> <li>11. CSS (close space sublimation) should be the other way around like close space sublimation (CSS)</li> <li>12. I don not see any discussion on CdTe. Need to talk about the material, why it is attractive for solar cells? What could be an alternative? Why do we usually use CdS, CdTe together?</li> <li>13. The title suggests CdTe, but I see perovskite, poly/mono crystalline, and other topics as well. I got confused about the focus of this article. If you want to compare, make another section for those. Please consider re-arranging the sections. May add subsections.</li> <li>14. In "Solar Cell Fabrication Summary" section, write more on how and why we selected the materials, how the bandgaps are relevant for choosing materials, choosing what layer to deposit on what layer, talk about optical absorption coefficient, wavelengths, temperature effect while fabrication, how to reduce defects of the layers etc</li> <li>15. "Photovoltaic panel (PV)t" – typo</li> <li>16. May add few lines, a table, or a section to summarize current efficiency comparison of different solar cell technologies. Why are we interested in CdTe? What makes it important regardless of its low efficiency compared to other alternatives?</li> <li>17. Need more discussion on what is the future of the technologies that has been discussed. What is the future of overall solar cell research: especially on CdTe based solar cells, add some future references</li> </ol>	
<p><b>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.</b></p>	<p><b>Since it is an important topic, there are many review articles available on. This manuscript needs more scientific discussion, proper terminologies, and better summarization of the past, present and future of this technology to stand out among other review articles with comprehensive discussion.</b></p>	
<p><b>Is the title of the article suitable? (If not please suggest an alternative title)</b></p>	<p><b>The title can be improved to make better sense for the readers</b></p>	

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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.	The abstract should represent what is inside. More discussion on the topics within. I suggest improving sentence structures.	
Are subsections and structure of the manuscript appropriate?	The subsections are not defined here. It is not easy to understand which part falls under which section. I recommend cleaning up the manuscript by adding proper subsections inside the sections. Must have a proper flow of the sections.	
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.	This article needs to add more scientific observations, more explanation on its topic. It is hard to understand what it wants to convey. A review paper must have the gist of the topic, so that the reader can have all the information summarized here. This article lacks focus and scientific exploration. The author needs to check grammatical errors and sentence formation.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Could be more references. I believe no. of references will increase after following the added comments. The most recent reference is of 2019. I think author should write about recent findings and do more research on recent topics.	
Minor REVISION comments  Is the language/English quality of the article suitable for scholarly communications?	English here should be more technical. Better sentence formation is required.	
Optional/General comments	Author needs to deep dive on the manuscript to improve its quality	

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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>	We agree with all comments.

**Reviewer Details:**

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