

Peer Review

Review of: "A Brief Review of the Optoelectronic Properties of Delafossite Materials for Solar Cell Applications"

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This article does a solid job of highlighting the importance of delafossite materials in solar cell applications. The explanations of their structural, electronic, and optical properties are clear and well-supported by references. The flow of the paper is logical, and the figures and tables add great value, helping the reader understand complex ideas more easily.

Where It Can Improve:

1. The paper could benefit from discussing some of the challenges in scaling up delafossite materials for real-world applications. How hard are these materials to produce on a large scale?
2. It would be great to see more detailed insights into their optoelectronic mechanisms—like how defects or charge carrier dynamics might impact their performance.
3. Including a comparison with other materials, such as perovskites or CIGS, would help put delafossites into perspective for readers who may not be familiar with their unique advantages or limitations.
4. Adding a section on future research directions would give the paper a stronger sense of purpose and inspire more follow-up studies.
5. Some figures could use more explanation to tie them back to the discussion, and a few recent references would make the content feel fresher.

Final Thoughts:

The article is well-written and highly relevant to the field of renewable energy. It's a strong review, but it feels like it could go a step further by addressing these areas for improvement.

Declarations

Potential competing interests: No potential competing interests to declare.