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| Book Name: | [Chemical and Materials Sciences: Research Findings](https://www.bookpi.org/bookstore/product/chemical-and-materials-sciences-research-findings-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_5679** |
| Title of the Manuscript: | **Optoelectronic and nanomechanical properties of sputtered Cu3N thin films: a versatile material for sustainable energy applications** |
| Type of the Article | **Book Chapter** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journal.**

**Journal of Nanomaterials, 13: 2950, 2023.**

**Available:** [**https://www.mdpi.com/2079-4991/13/22/2950**](https://www.mdpi.com/2079-4991/13/22/2950)

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | In this document, data on both the optoelectronic and nanomechanical aspects of thin Cu₃N films made by RF magnetron sputtering in nitrogen environments are investigated. It reviews the main factors involved in thin film deposition and their role in the suitability of materials for photovoltaics, photodetectors and hydrogen storage. Examining Cu₃N thin films with several advanced approaches gives us more insight into their capabilities and their behavior. These results matter greatly to the scientific community looking for eco-friendly materials used in energy conversion and storage. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | The title matches the manuscript’s theme and completeness. |  |
| 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 is well-prepared and covers all key points. More specifically, the key results (except for the main optimal conditions) about the coating process and its performance should be explained. Highlight 1–2 important numbers to make your message easy to understand and more powerful. |  |
| **Is the manuscript scientifically, correct? Please write here.** | The manuscript is based on reliable scientific methods. The methods are meticulously planned and all the analyses are backed by lots of data. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | The references are sufficient, covering studies done in the past as well as those done recently. You can add the most recent evidence (2023–2024) where possible to back the broader context of your research. |  |
| Is the language/English quality of the article suitable for scholarly communications? | Most parts of the language are precise and academic. Suggestions for simple improvements include rewriting long sentences and using active voice more often. |  |
| Optional/General comments | This manuscript adds valuable insight to the study of thin films for energy uses. The way each character is explored is impressive. It helps to make some of the technical descriptions easier for people to read.  **This document is both extensive and scientifically supported. Even, improving some abstract words, fixing a few grammar issues and also adding some more current examples and references would help in improvising the paper.** |  |

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| **PART 2:** | | |
|  | Reviewer’s comment | 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)* |
| **Are there ethical issues in this manuscript?** |  |  |

**Reviewer details:**

**Saidatri Arige, V. V. Institute of Pharmaceutical Sciences, India**