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| Book Name: | [**Chemistry and Biochemistry: Research Progress**](https://www.bookpi.org/bookstore/product/chemistry-and-biochemistry-research-progress-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_6102** |
| Title of the Manuscript: | **Review of Indian Silk Varieties: Microstructural Characterization and Industrial Potential** |
| Type of the Article | **Book Chapter** |

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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.** | As a reviwer I found this manuscript is of considerable importance to the scientific community as it presents a comprehensive review of various Indian silk varieties, both mulberry and non-mulberry. It offers a valuable comparison of their microstructural, chemical, and mechanical properties, highlighting their industrial and biomedical potential. Given the increasing global interest in sustainable and high-performance natural fibers, the review's insights into structural diversity, taxonomy, and conservation of silk make a significant contribution. Additionally, the manuscript's interdisciplinary approach connects textile science, material engineering, and conservation biology. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | Yes, the title is suitable and reflective of the content.  Suggested Alternative (optional):  “Microstructural and Functional Characterization of Indian Silk Varieties: A Review on Their Industrial and Biomedical Potential” |  |
| 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. | Yes, the abstract is largely comprehensive. It clearly outlines the focus on structural properties and industrial relevance of different silk types.  Suggestions:   1. Consider shortening slightly for clarity. 2. Include the significance of conservation and sustainability issues briefly, as this is a notable part of the manuscript. |  |
| **Is the manuscript scientifically, correct? Please write here.** | Yes, the manuscript is scientifically correct. It draws from a broad base of peer-reviewed sources and accurately discusses biochemical, mechanical, and evolutionary aspects of silk fibers. Data interpretation is appropriate, and conclusions are consistent with the evidence provided. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | The references are generally sufficient and cover a wide range of studies from 1988 to 2021.  Suggestions:  Consider adding recent publications post-2021 to enhance the currency of the review.  Include more recent studies on biomedical applications and advanced material uses of silk proteins, such as:  Some are are mnetioed here -   1. Kundu, B., Kurland, N. E., & Kundu, S. C. (2023). Silk-based biomaterials: trends and prospects. Materials Today Bio. 2. Altman, G. H., et al. (2003). Silk-based biomaterials. Biomaterials, 24(3), 401–416. (If not already cited) |  |
| Is the language/English quality of the article suitable for scholarly communications? | Yes, the English is of scholarly quality. Minor repetitions and phrasing could be edited for conciseness and style, but the manuscript is readable and coherent overall. |  |
| Optional/General comments | This chapter presents a well-structured and informative review of Indian silk varieties, effectively bridging the knowledge gap between traditional textile applications and modern industrial or biomedical uses of silk. The integration of microstructural, biochemical, and mechanical analyses gives readers a multidimensional understanding of the subject. The historical and conservation-related insights, especially regarding non-mulberry silks, add contextual richness and emphasize the broader socio-environmental relevance of sericulture in India. |  |

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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?** | *(If yes, Kindly please write down the ethical issues here in details)* |  |

**Reviewer details:**

**Mahesh Balasaheb Chougule, India**