

Review Form 3

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| Journal Name: | Asian Journal of Research in Biochemistry |
| Manuscript Number: | Ms_AJRB_130346 |
| Title of the Manuscript: | GREEN SYNTHESIS OF METAL COMPLEXES OF THIAZOLE-BASED SCHIFF BASES: A REVIEW |
| Type of the Article | Review |

PART 1: Comments

| | Reviewer's comment | Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i> |
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| 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. | This manuscript holds significant importance for the scientific community as it consolidates critical knowledge on green synthesis methods for metal complexes of thiazole-based Schiff bases, an emerging field with broad applications in pharmaceuticals, catalysis, and environmental remediation. By focusing on eco-friendly and sustainable approaches, the paper addresses pressing global concerns, such as reducing chemical waste and minimizing environmental impact, aligning with the principles of green chemistry. Furthermore, the identification of research gaps, such as the underexplored areas of biocatalysis and nanoparticle-assisted synthesis, provides valuable directions for future studies. This work serves as a comprehensive reference for researchers and industrial practitioners aiming to develop greener and more sustainable chemical processes. | |
| Is the title of the article suitable? (If not please suggest an alternative title) | The current title, " Green Synthesis of Metal Complexes of Thiazole-Based Schiff Bases: A Review ," is descriptive and reflects the content of the manuscript. | |
| 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 provides a good overview of the paper by summarizing the focus on green synthesis methods for metal complexes of thiazole-based Schiff bases, along with the advantages, challenges, and future perspectives of these approaches | |
| Is the manuscript scientifically, correct? Please write here. | Yes, the manuscript appears to be scientifically correct overall, as it is well-researched and supported by an extensive review of the existing literature. It accurately presents green synthesis methods for metal complexes of thiazole-based Schiff bases and discusses their advantages, limitations, and future potential. The explanations of green synthesis methods like microwave-assisted synthesis, solvent-free reactions, biocatalysis, and nanoparticle-assisted synthesis are consistent with established principles of green chemistry and supported by relevant citations. | |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. | <p>Sufficiency:</p> <p>The manuscript references a broad range of studies, which helps support its claims. It includes foundational works on green synthesis, key methods like microwave-assisted and solvent-free reactions, and relevant research on thiazole-based Schiff bases and their applications. The references cover both older foundational studies and recent work, ensuring a good balance.</p> <p>Recency:</p> <p>The manuscript includes several recent references (e.g., studies from 2021–2024), which indicate an effort to stay up-to-date with the latest advancements. However, there are areas, such as biocatalysis and nanoparticle-assisted synthesis, where references are sparse, and including more recent</p> | |

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| | examples could strengthen the discussion. | |
| Is the language/English quality of the article suitable for scholarly communications? | The manuscript is suitable for scholarly communication but requires moderate editing to improve grammar, readability, and conciseness. These improvements will enhance the clarity and impact of the paper, making it more accessible to a global audience. | |
| Optional/General comments | - | |

PART 2:

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| | 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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|----------------------------------|---|
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