

Review of: "Synthesis and Antibacterial Screening of Cefradine Schiff Bases and Their Metal Salts"

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Potential competing interests: No potential competing interests to declare.

Qeios

The article entitled “**Synthesis and Antibacterial Screening of Cefradine Schiff Bases and Their Metal Salts**”. The authors explored the series of Schiff bases (3-8) were synthesized by the reaction of cefradine with six different aldehydes/ketones. These Schiff bases (3-8) were treated with different bases/salt (NaOH, KOH, Ca(OH)₂, Ba(OH)₂, Ag(NO₃)₃) to get their metal salts. Structures of the products were ascertained by spectroscopic data. The synthesized compounds were tested for biological activities against Staphylococcus aureus (gram positive bacterium) and Escherichia coli (gram negative bacterium). In general low activities of most of the synthesized compounds were observed in comparison to cefradine which can be linked to unavailability of free amino group of cefradine by its involvement in synthesis of imine derivative.

I have read the manuscript carefully. I have found that is an interesting study and will have a significant impact on future research. Therefore, it is recommended to be accepted after minor changes to the prestigious Peer Review Team, Qeios for publication. The following few issues need to be addressed.

Comments to Authors

1. keywords; write them in alphabetical order.
2. The introduction is very short. Mention the latest research data regarding the synthesis of Schiff bases.
3. Add the impact of current work on future research.
4. Mention all the chemicals with their purity and country names.
5. Why the authors didn't mention any literature references besides the introduction section?
6. Authors need to improve the problem statement in the introduction section.
7. Why and how the said parameters were selected for this work? More specific details needed to be added with the use of the latest reference.
8. Please remove all the grammatical errors, and check the whole manuscript with a bird's eye.
9. Use Endnote or Mendeley for reference. The current format is not according to the prestigious journal.
10. Revise the conclusion and make it clear.

Authors need to increase the literature and problem statement from the current recent papers such as

- <https://doi.org/10.1016/j.envres.2023.115253>
- DOI: 10.1021/acssuschemeng.8b01212
- <https://doi.org/10.1016/j.envres.2023.115429>
- <https://doi.org/10.1002/app.50138>