Review of: "[Review Article] Green Strategies for the Synthesis of Quinolone Derivatives"

Chinweike Eze[1]

1 University of Nigeria

Potential competing interests: No potential competing interests to declare.

Dear authors,

Kindly find my point-to-point comments on your article.

1. I found a few examples of recent literature on the present topic, e.g.:

10.1080/17518253.2022.2064194

10.1016/j.molstruc.2023.136565

10.2174/0113852728268691231009063856

10.1016/j.ejmech.2018.11.02.

To underline the novelty of the present paper, authors need to demonstrate the significant contribution of the present review devoid in the previously published papers. In addition, it is always a good idea to indicate the period of coverage of review papers, typically 5-10 years.

2. The paper describes green approaches to the synthesis of quinolones, a molecular framework with diverse therapeutic applications. Authors need to briefly highlight, with citations, the conventional methods of synthesizing quinolones and indicate their shortcomings.

3. On pages 7-10, authors have highlighted various quinolone structures with corresponding biological activities. What criteria have authors considered in selecting these derivatives - potency, most recent publications, patent? Kindly comment.

4. On page 11, authors discussed the binding mechanism of compounds**CQ1** and **HCQ1**. However, these are not quinolones. Why?

5. Authors have referred to compound **C** in fig. 12, but there is no compound titled**C**. Kindly assign numbers to all compounds.

6. In the various synthetic methods outlined, authors need to comment on the versatility and functional group compatibility.

7. Where heavy metals such as Pd, Mo, Fe, Ru, Ir, Co, In have been employed as catalysts, authors need to detail how the methods are regarded green. Namely, what makes these methods green?

8. Chemical structures have not been drawn with consistency. All chemical structures need to be drawn using a defined template.

9. In the reference section, many of the citations are listed as “a,b”. However, this is not reflected in the “in-text” citation. Kindly comment.

Overall, the paper provides insights into green approaches for the synthesis of quinolones. In my opinion, for the paper to be accepted for publication, authors need to address the comments above.

Best regards.