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

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Potential competing interests: No potential competing interests to declare.

The manuscript entitled "**Green Strategies for the Synthesis of Quinolone Derivatives**" was reviewed. The main motive of this study is to summarise the recent advancements in green chemistry methods for establishing quinolone scaffolds from various scientific journals, online databases, and libraries, which will help scientists to develop non-toxic and eco-friendly techniques for the synthesis and development of novel drugs. This manuscript can be accepted for publishing, but I have some **major remarks** before it can be publishable.

1. The title is informative and relevant, but it could be more specific.

2. The Abstract part is weak, and it must be more informative by including more mathematical findings and more powerful explanations.

3. Please pay more attention to the expression check. Please try to conduct more literature reviews.

4. The writing of the paper should be improved. Please try to improve all the contents, and the presentation should be revised to make the readers get your idea more clearly, making the logic clear and correct. Also, the innovation and realization should be described clearly.

5. What is the main significance of the paper in comparison to related published works? Why did the authors choose quinolone for the review?

6. Explain the effective parameters that increase the yield of reactions?

7. Authors have claimed “In the 1990s, twelve "Green Chemistry" tenets were developed to "fulfill the demands of the current generation without compromising the requirements of future generations." Industries and academia are currently attempting to improve conformity with these 12 principles of green chemistry.” Discuss the shortcomings of previous work and the gaps and how this work intends to fill those gaps. Related references should be cited:

- International Journal of Hydrogen Energy, 48 (2023) 37286-37301.- Journal of Energy Storage, 85 (2024) 111161. - Journal of Molecular Liquids 242 (2017) 447-455; Microporous and mesoporous materials 95(1-3) (2006) 248-256; Polyhedron 28 (14) (2009) 3005-3009; Journal of alloys and compounds 617 (2014) 627-632; Diamond and Related Materials 79 (2017) 133-144;Polyhedron 28 (14) (2009) 3005-3009; ; Journal of Alloys and Compounds 791 (2019) 792-799; Ultrasonics Sonochemistry 82 (2022) 105892;

8. It is suggested to summarize the list on page 6 in a table.

9. It is recommended to add some results supported with measurements to prove the potency of the drugs, such as **Electrochemical Detection of Quinolone Derivatives**.

10. You are requested to add some content to amplify how this research work contributes to forwarding the field of study. The conclusion part should be kept short and must be fully supported by the results reported.