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

Hiba Hassan Sulieman Omer

Potential competing interests: No potential competing interests to declare.

The manuscript provides a comprehensive review of recent advancements in green chemistry techniques for synthesizing quinolone derivatives. Quinolones are a diverse class of compounds widely used in medical fields, particularly as antibiotics. The authors emphasize the significance of green chemistry in addressing concerns related to toxicity, waste reduction, and sustainability.

Manuscript Strengths:

The paper offers a thorough introduction to quinolones, covering their history and importance in medicine.
The authors provide a detailed discussion of green chemistry strategies, highlighting their advantages and limitations.
The manuscript explores a range of synthesis methods for quinolones, including microwaves, solvent-free processes, photocatalysis, biocatalysis, ultrasound-mediated synthesis, and the use of green solvents.
The authors address the pharmacological activities of quinolone derivatives, offering examples of their impact on various aspects of human health.
The inclusion of relevant references and figures enhances the credibility and support of the content.
Manuscript Weaknesses:

Although the manuscript lacks original data, it could benefit from a concise summary of existing reviews and meta-analyses pertaining to green synthesis methods for quinolones.
The absence of a clear conclusion section makes it challenging to extract the key takeaways and implications of the reviewed material.

Overall, the manuscript provides valuable insights into the latest developments in green chemistry techniques for synthesizing quinolone derivatives. By incorporating improvements such as a concise conclusion and referencing previous reviews, the manuscript could serve as a valuable resource for researchers interested in exploring sustainable approaches to quinolone synthesis.