Review of: "Synthesis of Nickel Nanoparticles Using Ionic Liquid-Based Extract from Amaranthus viridis and Their Antibacterial Activity"

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Potential competing interests: No potential competing interests to declare.

Authors carried out the study on “Synthesis of Nickel Nanoparticles Using Ionic Liquid-Based Extract from Amaranthus viridis and Their Antibacterial Activity”, however, it would have been better to add more explanation about the synthesis method and its biological applications.

Authors should address the below comments in the revised manuscript:

Comments:

1. The abstract is too short and seems incomplete. A well-framed abstract has to provide the gist of the research article. Kindly reframe the abstract within a word limit of 100-200 along with key features of the research regarding results and conclusion.
2. Correct the scientific name of the bacterial species in the whole article. Write the species name in italics. For example, correct Amaranthus viridus to “Amaranthus *viridus*”
3. Add a reference to the statement in the sentence in the last line of the first paragraph- “However, these methods are unstable, time-consuming, and energy-intensive. A novel extraction method based on microwave help has been developed to get over these constraints.
4. Kindly improve the language under the Materials section.
5. The synthesis method is quite incomplete; please carry out more studies for its synthesis confirmation.
6. Peak indexation should be carried out and done correctly.
7. Please explain the full forms first and then use the abbreviations in a correct manner.
8. In line no. 37, correct the heating rate along with its unit- 10°C/min.
9. Increase the number of references. Mere 20 references to justify a whole research paper on a vital study like this won’t suffice.
10. Under heading 2.4 Antibacterial activity, correct the scientific names of the bacterial species. Write the species name in italics.
11. Correct the scientific names of the bacterial species throughout the article.
12. Write the unit of diffraction strengths mentioned in Figure 3 in the text.
13. Under heading 3.6, Zeta size and Zeta Potential, add a citation to the statement- “Zeta potential is crucial for figuring

out a nanoparticle's surface charge and long-term stability."

14. Please keep uniformity in the space between the value and its unit.
15. Kindly elaborate on the obtained results in the conclusion.
16. Correct the authors' names in reference no. 9.
17. Provide references next to the citation of figures and tables in the text from where they have been taken.
18. Please keep uniformity in the bibliography.