# 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.

This study conducts comprehensive research on “Synthesis of Nickel Nanoparticles Using Ionic Liquid-Based Extract from Amaranthus viridis and Their Antibacterial Activity”. The novelty and objectives have not been presented effectively. This research does not convey detailed information by clearly describing the results obtained from various techniques and applications. However, major adjustments have been recommended after a critical review to refine its presentation. In terms of language, the overall writing is not clear and technically weak; attention to grammatical details and sentence structure could further improve the manuscript's readability.

1. Improve the 1st sentence of the Abstract and add some results to improve the abstract.
2. Improve the introduction, especially the 1st paragraph.
3. Add the objectives and novelty of the study.
4. Please mention the name of the aqueous ionic liquid solution in the synthesis section.
5. Add subscript and superscript in writing formulas and units, i.e., Ni(NO3)2, at a heating rate of 10oC/min, at 3417 cm-1, 33.3o, 45.5o, and 55.5o, 530oC.
6. In the UV-Vis analysis of Ni NPs discussion, the procedure of antibacterial activity is given.
7. Italicize the scientific name of the plant and bacterial strains.
8. Add the mechanism of antibacterial activity in the discussion section.
9. Improve the discussion on the analysis of nanoparticles with suitable references.
10. Label the figures of UV, FTIR, XRD, TGA.
11. How these nanoparticles could be incorporated as antibacterial agents in the future.