

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.

Manuscript title: "Synthesis of Nickel Nanoparticles Using Ionic Liquid-Based extract from *Amaranthus viridis* and Their Antibacterial activity"

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The manuscript describes the synthesis of nickel nanoparticles from a plant sample and a Nickel nitrate salt solution.

- The software used for detecting plagiarism has spoiled the English language throughout the manuscript.
- The introduction is weak without a systematic review of previous work and no proper details like plant authentication, etc.
- The results are not described in an effective way, and the discussion part is missing. There are contradictions in particle sizes in the XRD, Zeta, and SEM. The authors mention Scherrer's formula but haven't come across the same in the results section.
- SEM pictures are not good and not representable.
- The EDX showed Cl and Ag, which I assume are what gives the antibacterial activities.
- The methods for the antibacterial assay did not specify the MIC and MBC. The methodology has not been discussed properly. The initial inoculum of test bacteria is not used, and antibacterial assays are usually carried out in Muller Hinton agar. The agar diffusion method protocols used are not specific with the concentrations of nanoparticles used and the suspension preparation, as the nickel doesn't dissolve in water.

I will recommend not publishing the manuscript without addressing these comments, specifically the absence of nickel nanoparticles they claimed to be present. Overall, the English language throughout the manuscript needs to be checked, or any guidance from a native English speaker would be helpful.