

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.

On reading the manuscript, I believe that it can be accepted for publication after answering the below questions:

1- Wavelength, not wavelenght, in Figure 1. UV/Vis of synthesized Ni nanoparticles

2- In the UV spectra, you can see just one dominated peak which, as discussed in {1- Optical Materials 64, 376-383, 2017, and 2- Optical Materials 148, 114862, 2024}, indicates that the geometrical structure of crystallites should be nearly spherical in shape, which is confirmed by the SEM image. Is it possible to get a TEM image as well to show the crystallite structure, which is important in absorption? I think the above references should be addressed for more details.

3- Some donated peaks in Figure 5. FESEM of synthesized Ni nanoparticles have not been labelled. Do that, please, and explain in more detail why you did not write intensity in this figure?

4- What do the authors mean: Zeta potential is crucial for figuring out a nanoparticle's surface charge and long-term stability. Ni NPs have a zeta potential of -41 mV on average. The remarkable stability of the nanoparticles is indicated by this value. Thus, a wide range of applications in many sectors are promised by these nanoparticles? I could not understand why they say so?

5- I am sure there is not enough time to pay attention to many issues in this regard, but I suggest the authors address some references, such as {1-International Journal of Nano Dimension 14 (2), 138-144, 2023, 2- Journal of Optics, 1-8,2024}, for the hollow around +,- gram and the antibacterial activity of these nanoparticles against bacteria.