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.

1. In the introduction, I suggest that the authors should cite previous work that utilizes ionic liquids to extract organic substances from plants and eventually use it for synthesizing metallic nanoparticles. They may also discuss the advantage of using ILs in synthesizing metallic nanoparticles over the conventional aqueous-based synthesis.
2. Sub-header 3.1's title is UV-Vis spectroscopy, but it discusses the antimicrobial properties of the nanoparticle.
3. The peaks of the FTIR spectrum should be properly labelled.
4. In subheader 3.2, the authors conclude that the extracts contain flavonoids, aldehydes, etc. (These bands show that the plant extract contains flavonoids, aldehyde, amines, and alkane chemicals). However, it should be noted that FTIR only confirms the functional groups present. I suggest that the authors rephrase the statement to "The presence of the various FTIR peaks can be associated with different plant metabolites such as flavonoids, etc. They may further support this by performing qualitative tests.
5. In subheader 3.2, they state that the Ni2+ ions concentration decreases. However, no experimental support was provided to confirm this statement.
6. I suggest properly labelling figure 7 with the type of bacteria used. Propose also the antimicrobial mechanism of Ni nanoparticles.