

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.

Comments

Abstract:

The abstract is so simple and needs to be rewritten again.

Results of antibacterial activity should be mentioned in the abstract.

Introduction:

Page 2: *Amaranthus viridis* is a member of the Amaranthaceae family. Correct the highlighted words throughout the manuscript.

Page 2: The development of resistant germs to current antibiotics. Replace the highlighted word with bacteria.

A number of plants have been reported for the synthesis of Ni nanoparticles. Why did the author particularly choose *Amaranthus viridis*?

Describe the importance of green synthesis in the introduction.

Describe the importance of the antibacterial properties of NiO in the introduction.

What is the novelty of your work?

Experimental procedure:

Page 2: An aqueous solution of 0.01 mM Ni(NO₃)₂ at 50 W, Ni(NQ)₂

Characterization:

Page 3: At a heating rate of 10 °C/min and a temperature range of 50 to 900 °C, 10°C/min, 900 °C, also check this throughout the manuscript.

Result and discussion:

Page 4: The stretching vibration of OH at 3417 cm⁻¹, cm¹

Page 5: Figure 2. FTIR of Ni NPs, mention the peak values.

Page 5: Sharp diffraction strengths at 2θ values of 33.3o, 45.5o, and 55.5o, 33.3, 45.5°, and 55.5°

Page 5: Write the formula of the Debye-Scherrer equation.

Page 5: Figure 3. XRD of synthesized Ni nanoparticles, mention the peak values.

Page 8: Figure 7 displays... displayed.

Conclusion

Which can be extracted... Remove the marked words... extracted.

Compare your results with the literature.

The author needs to update the most recent references.

<https://doi.org/10.1515/ntrev-2023-0189>

<https://doi.org/10.1080/15226514.2022.2040421>

<https://doi.org/10.1080/03067319.2023.2293909>

<https://doi.org/10.1007/s11468-024-02333-1>

The grammar of the manuscript needs to be checked properly. Several grammatical errors can be found throughout the manuscript, i.e., incorrect use of punctuation, use of articles, etc.