Review of: "Synthesis, Characterization and Ameliorative Effect of Iron Oxide Nanoparticles on Saline-Stressed Zea Mays"

Paul Jhon G. Eugenio[1]

1 Central Luzon State University

Potential competing interests: No potential competing interests to declare.

Thank you for submitting your research. Your research delved into the synthesis and characterization of Iron Oxide nanoparticles for Saline-Stressed Zea Mays. These are some of my comments to improve the novelty and quality of the paper:

1. The introduction is good and well-structured. Kindly give more emphasis to saline-stressed Zea Mays and how it could affect the plants and even humans. Explain more about the role of green nanotechnology in solving this problem.
2. Is FeNP similar to FeONP? Verify this information from other articles. Iron has two oxidation states, and the other might have different effects.
3. How long is the drying process of the plant materials? Please include it in the methodology.
4. What is the evaporation process that you employ? Did you use rotary evaporation?
5. What is the drying temperature of the biosynthesized NPs?
6. In the UV-vis experiment, please reconduct because the spectra did not give rise to decent results. Verify the typical surface plasmon resonance of FeONP so as to be sure that you have really synthesized the nanomaterials. You may want to dilute the samples because the absorbance is much greater than 1.0.
7. In FTIR analysis, could you expound more on the discussion of the different functional groups? Where is the Fe-O stretching?
8. Kindly perform a phytochemical analysis (test tube method) to know the active phytochemicals in the plant extract.
9. Your TEM image is good, but if you can provide a much clearer version, it will be great.
10. Based on the EDX data, how did you come up with the conclusion that you have really synthesized FeO and not other materials?
11. For XRD diffraction patterns, compare them with the standard FeO from the online database.
12. Correct the chemical formulas not written in the prescribed format.
13. Include the post-hoc analysis that you used.