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

Madhubala vijayakumar Madhubala[1]

1 Saveetha University

Potential competing interests: No potential competing interests to declare.

The manuscript is focused on the ameliorative effects of the biosynthesized iron oxide nanoparticles on saline-stressed Zea mays. This work is quite impressive and well organized. There are a few corrections in the manuscript that should be modified precisely.

1. The author should strongly mention the novelty of the work in the introduction part.
2. Are the synthesized nanoparticles FeO or Fe? Mention the correct one throughout the manuscript because both are different.
3. All the image resolutions in the manuscript should be improved.
4. In the results and discussion part, the author has written only the results that arrived. The correlation of the results of different characterizations needs to be discussed.
5. Mention the reason for particularly choosing Diodella sarmentosa leaves for the synthesis of iron oxide nanoparticles.
6. There is no strong confirmation that the synthesized sample is FeO nanoparticles. It can also be iron with other oxide forms (Fe_2O_3 or Fe_3O_4, etc.). Needs more clarification.
7. In Fig. 5, the XRD image is given for synthesized Fe nanoparticles, but other results are given for FeO. Please be careful while mentioning the sample names. XRD data should be matched with the JCPDS or ICSD card number.
8. FTIR spectra for the plant leaves extract also needed for comparison with the synthesized sample. The given FTIR spectra should be redrawn using Origin software.
9. The size of the synthesized nanoparticles mentioned from TEM images should be rechecked.
10. In conclusion, it is mentioned that “The synthesized spherical and amorphous iron nanoparticles with the size…” Rewrite the sentence.