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

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Potential competing interests: No potential competing interests to declare.

In this work, Iheme et al. reported the effect of green iron oxide nanoparticles to combat salinity stress in *Zea mays.* Although the work is good, the structure of the manuscript can be improved, which will make the work more understandable.

1. Authors need to strengthen the theme of the abstract. Please highlight major functional groups that are present in prepared nanoparticles. Also, please indicate the concentration of nanoparticles applied and the level of saline stress.
2. Please arrange the keywords alphabetically.
3. In the 2nd and 3rd paragraphs of the introduction section, while citing articles, please make sure to cite articles year wise. Like cite 2017 articles first, then 2018 articles. Please follow it throughout the whole manuscript.
4. Please be consistent while citing articles; if you are using the symbol '&' for two authors, then use these symbols throughout. In some places, you are using '&' and in some places 'and'. Please be consistent.
5. Please separate the last paragraph of the aims of this study and rewrite it. Please indicate how green nanoparticles were prepared and then their use.
6. In the introduction section, mention the novelty of the study over previous publications on the topic.
7. Please provide the details of the FTIR and TEM instruments.
8. In the materials and methods section, please give the citation of each protocol followed.
9. In the materials and methods section, whether the *Zea mays* genotype used is only one and whether it is tolerant to salinity stress. What is the reason behind selecting this genotype? Why not a salinity-sensitive genotype has been used? If only one genotype is used, how is the CRD design applicable? I am not agreeing with the design used by the authors in the experiment.
10. Which software was used for statistical analysis?
11. Please relate your FTIR results to the previous studies.
12. Please cite articles to support your TEM and SEM results.
13. I am not satisfied with the size of nanoparticles calculated in the XRD results. To my knowledge, size between 10 to 100 nm is effective. Please support your results with already published results in the literature.
14. Rewrite the citation of the line 'This is consistent with the report of Shah et al., (2021) and Achilles *et al;* (2013)' as 'This is consistent with the report of Shah et al. (2021) and Achilles et al. (2013)'

15. Please correctly cite articles. Format isn't consistent throughout the manuscript.
16. Please rewrite the captions of all figures. Please indicate what A, B, C, D, and E treatments represent. Also, mention the name of the test used to find out significant differences.
17. Rewrite the first line of the conclusion section.