

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

Miryam Martínez-Hernández¹

¹ Universidad Nacional Autónoma de México

Potential competing interests: No potential competing interests to declare.

In general, the manuscript is well written and substantiated, presenting an interesting approach using FeO nanoparticles to solve the problem of soil salinity for any given crop. The authors provide a good justification of the characterization techniques employed. The quantitative and statistical analysis of the data seems well performed and confirms the potential of the evaluated nanoparticles to improve plant tolerance to salinity. However, I would recommend revising the following points to improve the manuscript:

- In the introduction, describe what the ecological risks arising from the use of iron nanoparticles in soils for cultivation would be; also, related to this point, what is the safe concentration of Fe nanoparticles for use in soils intended for crops?
- When abbreviations are used for the first time, they should be adequately explained.
- In section 3, it should be specified that the results will be addressed together with the discussion.
- In section 3.2, explain in more detail why 380 nm is stated to be the optimum for FeO nanoparticles.
- The definition of Fig. 5 and the Supplementary Attachment 2 image could be improved, as they appear blurred and are difficult to read.
- It could add an analysis of the soil after the use of Fe nanoparticles to know the changes derived from their application.
- After these improvements, the article should be accepted.