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.

This paper deals about the FeO NPs synthesis using leaf extract of Diodella sarmentosa. The extract is a reducing agent for the iron nanoparticles' production. The chemical, size, shape, and optical properties of the NPs were characterized. After that, a foliar application of the FeNPs on the saline-stressed Zea Mays seems to have ameliorated the negative effects of salinity on plants, increasing the chlorophyll and carotenoid levels of the plant; also, the enzyme activity of antioxidant enzymes enhanced notoriously.

The manuscript is interesting, but the authors need to address the following observations before it is accepted.

1. Authors need to update the references in the paper and improve the references' editorial style.
2. The statistical letters on bars in figures do not seem well appreciated. Put error bars where applicable.
3. The FTIR bands should be identified and sustained by literature.
4. The nanoparticles did not enter the soil of the pots. Only foliar application was done. Discuss mechanisms responsible for the reduction in osmotic stress with it.
5. It would be convenient to define SOD and CAT when appearing for the first time.
6. In the text, replace 80 0C by 80^{o}C.

Authors need to correct some mistakes in the English orthography, reviewing the full text.