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.

After carefully reviewing the research paper entitled “Synthesis, Characterization and Ameliorative Effect of Iron Oxide Nanoparticles on Saline-Stressed Zea Mays”, I found the methodology to be sound and the results to be well-supported by the data. However, there are some comments which may help to further qualify the results as follows:

1- In the introduction section, once you chose to use “NPs” instead of the word “nanoparticles”, keep on using it for the rest of the manuscript in this way.

2- In section 2.7, line 5 avoid using two “mL” in a row. By the way, please use “mL” instead of “ml” throughout the manuscript.

3- Please provide equations in the manuscript with appropriate numbers. Also, rewrite the equation of percentage indices in section 2.9.

4- The FT-IR graph placed in supplementary attachment 2 has very low quality. Please plot the graph in the given rage and place it in the main body of the manuscript (section 3.1).

5- In section 3.2, what can be inferred from the width of the peak regarding mono/polydispersity of the synthesized FeO nanoparticles? Please mention it in this section.

6- In section 3.3 please clarify how the average diameter of the nanoparticles was calculated? Have you used special software such as Image J? This should be stated in this section. Also, in Fig. 3, the magnification for part b is not clear.

7- Knowing that Edax analysis is not precise in predicting the weight percent of the elements, it is better that in section 3.4, the existence of Fe and O in the composition of FeO nanoparticles is emphasized first, followed by the reporting of approximate weight and atomic percent.

8- The initial three paragraphs of section 3.7 ought to be omitted, with a condensed summary of their content integrated into the Introduction instead.

9- Please cite the following research papers which are focused on the green synthesis of nanoparticles using plant extracts:

Zahra Vaseghi, Omid Tavakoli, Ali Nematollahzadeh, New insights into mechanistic aspects and structure of polycrystalline Cu/Cr/Ni metal oxide nanoclusters synthesized using *Eryngium campestre* and *Froriepia subpinnata*, Korean Journal of Chemical Engineering, 2019, 36: 489-499.

Zahra Vaseghi, Ali Nematollahzadeh, Omid Tavakoli, Plant-mediated Cu/Cr/Ni nanoparticle formation strategy for simultaneous separation of the mixed ions from aqueous solution, Journal of the Taiwan Institute of Chemical Engineers, 2019, 96: 148-159.

Zahra Vaseghi, Ali Nematollahzadeh, Omid Tavakoli, Green methods for the synthesis of metal nanoparticles using biogenic reducing agents: a review, Reviews in Chemical Engineering, 2018, 34 (4): 529-559.