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.

The manuscript needs major revision.

Title

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

Abstract

The abstract is adequate.

1. Introduction

- Authors must choose whether references will be cited in the text of the manuscript in a specific order, from most recent to past or from past to present.

e.g., P2:L15,L16

….. (Kaleem et al., 2018; Khan et al., 2017; Ahmad et al., 2017). Or

….. (Ahmad et al., 2017; Khan et al., 2017; Kaleem et al., 2018).

….. (Etesami and Glick, 2020; Etesami and Jeong, 2018; Liang et al., 2018) Or

….. (Liang et al., 2018; Etesami and Jeong, 2018; Etesami and Glick, 2020)

P2:L8

….. (Ahmad et al., 2019; ….. Change to

….. (Ahmad and Akhtar, 2019; …..

P2:L23,L24

….. (Alvarez-Chimal & Angel Arenas-Alatorre, 2023). Change to

….. (Alvarez-Chimal and Arenas-Alatorre, 2023).

Incomplete reference

P2:L33

….. (Tripathi et al., 2017a) Change to

….. (Tripathi et al., 2017)

P3:L10

….. (Rout &Sahoo, 2015) Change to

….. (Rout and Sahoo, 2015)

- **Important:**

At the end of the introduction, authors should add information about the measurements that will be performed in the current research and what is the novelty of this study for application?

- **In general:** the introduction is adequate.

2. Materials & Methods

Add reference(s) for FeONPs synthesis preparation

2.3. Instrumental analysis of the nanoparticles

P4:L5

….. frequency range ….. Change to

….. wavenumber range …..

Add the FTIR spectrophotometer model used.

P5:L4

….. Scherrer equation β=k›lcos~~ɵ~~ …..

- Rewrite Scherer's equation in clear form
- Add the EDX device model used.

2.4. Seed and Soil Preparation

- Add reference(s) for preparing homogeneous soil samples

2.5. Pot Experiment

P5:L1

….. oZea mays !!!

2.7. Assessment of Antioxidant Enzyme Activity

P6:L1,L2

….. using the Mukherjee (Mukherjee, 1983) method by ….. Change to

….. using the Mukherjee method (Mukherjee and Choudhuri, 1983) by …..

P6:L4, L5

….. analyze CAT and SOD activities. Change to

….. analyze catalase (CAT) and superoxide dismutase (SOD) activities

P7:L2

2.9. ….. of per centage indices Change to

2.9. ….. of percentage indices

P7:L3

The per centage chlorophyll contents ….. Change to

The percentage chlorophyll contents …..

P7,L5,L6

- Write the equation in the correct form (on the line)

where T= test value, C = control value. Change to

where T= test value, and C = control value.

3. Results

3.1. FTIR spectroscopic analysis

P7:L1

….. the fourier-transform ….. Change to

….. the Fourier-transform …..

P7:L3 and L15

- (supplementary attachment 1) Or (supplementary attachment 2)
- What about the table represented in supplementary attachment 1?

P7:L6

….. in 1^0 amine and 2 0 amine compounds, !!!

P7:L11

….. The wavelength around 1850.270cm^{-1} is ….. Change to

….. The wavenumber around 1850.270cm^{-1} is …..

P7:L13

….. in 3 0 alcohol was found ….. !!!

- Add reference(s) to verify assignments obtained from the spectrum of synthesized iron nanoparticles.

3.2. Uv-vis

- Add reference(s) to verify the interpretation obtained.

3.3. Microscopic studies of the synthesized nanoparticles

- Add reference(s) to verify the interpretation obtained.

3.7. FeONPs ameliorative effects on salinized plants

P14:L10

….. Gonz§alez-García et al., 2021; ….. Change to

….. Gonz’alez-García et al., 2021; …..

P15:L14

….. Gohari et al. 2020b). Change to

….. Gohari et al. 2020).

Conclusion Change to

4. Conclusion

P19:L2

….. at 80 0C. Change to

….. at 80 ^{O}C.

P19:L4

….. light absorption peak of 380 m to have about 2.5Kev ….. Change to

….. light absorption peak of 380 nm to have about 2.5KeV ….. Change to

- The conclusion is adequate

References

The references were written in an incorrect and disorganized manner. The journal's instructions for writing references must be followed.

Figures

Figure 4. ….. synthesized Iron oxide ….. Change to

Figure 4. ….. synthesized iron oxide …..

The figure shown in supplementary attachment 2 is not clear.

Table

What about the table shown in supplementary attachment 1?

What about a, b, c and d in the table shown in supplementary attachment 1?

What about a, b, c and d in Tables 2 and 3?