

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

Jayapalan Thirupathy

Potential competing interests: No potential competing interests to declare.

Dear Editor,

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

The manuscript is recommended for publication after major revision.

1. The authors include the full form (Abbreviations)

In the abstract for FTIR, XRD, EDX, TEM, UV-vis, and SEM.

Cl, Mg, SO<sub>4</sub>, or HCO<sub>3</sub>

FeCl<sub>3</sub>·6H<sub>2</sub>O

NED, SOD

Z. mays

2. Check and correct the Scherrer equation  $\beta = k\lambda \cos\theta$ ,
3. The authors check the chemical formula suffix and prefix

KH<sub>2</sub>PO<sub>4</sub>/K<sub>2</sub>HPO<sub>4</sub>

H<sub>2</sub>O<sub>2</sub>

4. The authors check the unit 1.1ml ml, is it ml ml?
5. Check the unit of

0.4 ml of 1% V/V, is it capital V?

50μM, is it capital M?

6. The authors rewrite the sentence – "Followed by exposure of the tubes to incandescent light (200 watts lamp) for 10 minutes". It is not clear.

7. The authors check

Is it percentage or percent?

% index equation not in uniform.

1<sup>o</sup> amine and 2<sup>o</sup> amine. Check and correct 2<sup>o</sup> symbol.

XRD - 20.52 to 80.30°. Check and correct 80.30° symbol.

In the sentence Gonz lez-Garc a et al., check and correct the authors' names.

8. In fig.6, check y-axis spelling. Is it length or length?

Check the spelling of the y-axis of supplementary figs. 3 and 4.

9. The sentence - like hydroxyl radicals ( $\bullet\text{OH}$ ), hydrogen peroxide ( $\text{H}_2\text{O}_2$ ), and superoxide radicals ( $\text{O}_2^{\bullet-}$ ), the bar line indicates? Check and correct.

10. The authors check the space - stressed *Zea mays* root, stressed *Zea mays* root.

11. FTIR spectra of the synthesized Fe nanoparticles – The authors check and change the FTIR spectra figure with a high-resolution image.

12. The authors could explain why table 4 has a few minus values. How did you calculate the values?

13. All the Supplementary attachments are mismatched. Check and correct them.

14. The authors explain how they calculated the nanoparticles' average particle diameter, which varied from 2.22 nm to 27.83 nm.

15. In Energy dispersive X-ray spectroscopy (EDX) - The percentage composition of oxygen was 15.13%. Is it oxygen?

16. The authors check all the symbols, abbreviations, space, spelling, and grammar throughout the whole manuscript.

17. What is the motive of your manuscript, and can you suggest a few applications in the revised manuscript?