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

Nor Monica Ahmad

Potential competing interests: No potential competing interests to declare.

Below are some recommendations to further enhance the manuscript.

Introduction:

- Include a section in the introduction discussing how other examples of nanoparticles (e.g., zinc, magnesium, silver) have been known to improve soil quality.

Optimization Parameters:

- Justify the absence of optimization parameters in the synthesis process. Explain why certain parameters were chosen and discuss their impact on the outcome.

Calcination Temperature:

- Specify the temperature used for the calcination process in the manuscript.

Aqueous Solution in NP Synthesis:

- Clearly mention the type of aqueous solution used in the synthesis process. Specify if distilled water was utilized.

FTIR Spectroscopic Analysis:

- Provide information on the wavelength used for the evidence of Fe-O formation in the FTIR spectroscopic analysis.

UV-Vis Spectra:

- Include at least one finding to support the present UV-Vis spectra in the manuscript.

TEM Analysis:

- It is recommended to include histograms in the TEM analysis section for a more comprehensive presentation of the data.

Mechanism of FeO NPs in Reducing Saline Stress:

- Explain the mechanism through which FeO nanoparticles reduce saline stress. Provide details on the interactions and processes involved.

Chlorophyll and Carotenoid Contents:

- Elaborate on how increasing chlorophyll and carotenoid contents enhance plant tolerance to salinity. Discuss the physiological and biochemical processes responsible for this enhancement.

These suggestions aim to enhance the clarity and completeness of the manuscript. Make sure to address each point and provide relevant information for a more comprehensive and well-rounded research paper.