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.

I am happy to review this article, and I will make some suggestions before accepting it.

1: The abstract does not have much clarity, so the author should make it concise according to the results.

2: The introduction part doesn't have much information about iron oxide nanoparticles, and they didn't provide information about why they chose this material to synthesize nanoparticles.

3: In the synthesis portion, the author should add the purity of the materials, like FeCl3.H2O 97%, etc.

4: In UV-Vis, there is no clear peak of bonding, so how does the author claim that it is formed?

5: The author should have to provide references in the literature that match these results.

6: The FTIR graph resolution is so poor; the author should try to make it original.

7: In XRD, the author has just written the data of peaks and has to calculate various parameters that confirm the formation of nanoparticles. For help, the author can get help from suggested articles.

i): Majid, F., Wahid, I., Ata, S., Bibi, I., Ali, M. D., Malik, A., ... & Nazir, A. (2021). Cationic distribution of nickel-doped NixCoX-1Fe2O4 nanoparticles prepared by hydrothermal approach: Effect of doping on dielectric properties. *Materials Chemistry and Physics*, *264*, 124451.

ii): Majid, F., Ali, M. D., Ata, S., Bibi, I., Malik, A., Ali, A., ... & Iqbal, M. (2021). Fe3O4/graphene oxide/Fe4 [Fe (CN) 6] 3 nanocomposite for high-performance electromagnetic interference shielding. *Ceramics International*, *47*(8), 11587-11595.

iii): Ali, M. D., Aslam, A., Zeeshan, T., Mubaraka, R., Bukhari, S. A., Shoaib, M., ... & Waseem, S. (2022). Robust effectiveness behavior of synthesized cobalt-doped Prussian blue graphene oxide ferrite against EMI shielding. *Inorganic Chemistry Communications*, *137*, 109204.

iv): Ali, M. D., Majid, F., Aslam, A., Malik, A., Wahid, I., Dildar, S., ... & Dahshan, A. J. C. I. (2021). Dielectric and electrical properties of synthesized PBGO/Fe3O4 nanocomposite. *Ceramics International*, *47*(18), 26224-26232.

v): Majid, F., Dildar, S., Ata, S., Bibi, I., Mohsin, I. U., Ali, A., ... & Ali, M. D. (2021). Cobalt doping of nickel ferrites via sol-

gel approach: effect of doping on the structural and dielectric properties. *Zeitschrift für Physikalische Chemie*, *235*(12), 1811-1829.

vi): Zeeshan, T., Anjum, S., Waseem, S., Majid, F., Ali, M. D., & Aslam, A. (2021). Influence of zinc substitution on structural, elastic, magnetic and optical properties of cobalt chromium ferrites. *Materials Science-Poland*, *39*(1), 139-151.

vii): Aslam, A., Ali, M. D., Fakhar, U., Ahmad, A., Khalid, U., Amami, M., & Dahshan, A. (2022). Electrical, dielectric, IV and antimicrobial behavior of cobalt incapacitated Prussian blue graphene ferrites composite. *Inorganic Chemistry Communications*, *141*, 109548.

viii): Ali, M. D., Aslam, A., Haider, M. A., Fakhar, U., Ezzine, S., & Somaily, H. H. (2022). IV, dielectric, antibacterial, and robust EMI shielding effectiveness properties of graphene/Fe3O4. *Inorganic Chemistry Communications*, *146*, 110039.

ix): Zeeshan, T., Obaid, A., Waseem, S., Ali, M. D., Kayani, Z., & Brahmia, A. (2024). Investigation on structural, optical and anti-bacterial properties of organic additives iron oxide prepared by chemical route method. *Arabian Journal of Chemistry*, *17*(2), 105581.

8: The author claims that the NPs range from 2.2 to 27 nm but didn't provide proof. So the author should have to draw a particle distribution graph from the SEM results.