



SDI Review Form 1.6

Journal Name:	Chemical Science International Journal
Manuscript Number:	Ms_CSIJ_45799
Title of the Manuscript:	Evaluation of the Anti-Microbial Activity of Zero valent iron nanoparticle synthesized using Aspillia plorizeta extracts
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>The authors have studied the Evaluation of the Anti-Microbial Activity of Zero valent iron nanoparticle synthesized using Aspillia plorizeta extracts.</p> <ol style="list-style-type: none"> 1. A lot of literature is available on Zero valent iron nanoparticle synthesized using plant extracts, it would be better to mention the electrochemical reactions mechanism of reduction of iron ion to iron NPs by plant extract. 2. Section 2.5 Preparation of iron salt and synthesis of zero valent iron oxide nanoparticle, I wonder the suitability of methods. It seems agglomeration of particles because no time was given for nucleation process. 3. Figure 1 is not good to claim as Fe NPs, no need to mention if having XRD results. 4. NO TEM and SEM/EDX images are given. 5. Fig 3. If FTIR shows Fe-O bond vibration, then it means it is not zero valent, how the authors would justify this?. I don't this peak at 700 belong to Fe-O, please give reference. 6. I am surprised to see the XRD which showing good crystal form of Fe NPs, which is I think not possible. The main peaks of 200 and 202 hkl are missing. 7. X-RF spectrophotometer was used to determine elemental composition, results obtained confirmed presence of Fe 31.58%, MgO 12.02%, Al₂O₃ 1.883%, SiO₂ 13.84%, P₂O₅ 11.14%, K₂O 4.699% and CaO 1.522%. This is much confusing and showing that samples of Fe NPs are not pure and how it is possible to get such high percentage of Metal Oxides?? 8. Conclusion must be rewritten in quantitative form. 	<p>Corrected the manuscript, mechanism has also been included.</p> <p>This method has been tested by many researchers and it has worked, once a precipitate has been formed indicates NPs formation .Quantity of NPs formed is the one that will be determined by time duration you live NPs to settle, in my case i gave it a duration of one hour then centrifuged.</p> <p>Figure 1 was able to merge them together iron (iii) chloride spectrum to give a more presentable figure.</p> <p>Optical properties which showed a black precipitate, disappearance of peaks in comparison of FeCl₃ spectrum and developed NPs spectrum from UV data and XRD analysis I do believe is able to show that in deed NPs were formed, but in my future studies will incorporate TEM,SEM and EDX images.</p> <p>My argument was based on theta values where several researchers have formed their NPs at around 44° in my case it was 43.73° which is almost close to their value and have supported my argument with reference, estimation of particle sizes using Scherer's equation at said values is also in agreement with definition of a nanoparticle.</p> <p>Relatively higher percentage of other oxides maybe as a result of environmental factors i.e. where the plants were growing percentage of said elements maybe were high in soil, so in future studies there is need to carry out analysis of plants constitution before NPs synthesis.</p> <p>My conclusion has been corrected.</p>
Minor REVISION comments		
Optional/General comments		

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	
If plagiarism is suspected, please provide related proofs or web links.		