

Review Form 1.7

Journal Name:	Asian Journal of Chemical Sciences
Manuscript Number:	Ms_AJOCS_118152
Title of the Manuscript:	Nanoscale zero-valent silver and graphene oxide nanoparticles: facile synthesis and characterization
Type of the 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:

(<https://www.journalajocs.com/index.php/AJOCS/editorial-policy>)

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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)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> Yes, the manuscript is of importance for the scientific community as it reports facile synthesis and characterization of zero valent silver and graphene oxide nanoparticles which have a wide variety of applications. However, the manuscript lacks the discussion of the obtained results as well as their analysis. The quality of the figures is not up to the standard. The language and English quality must be improved majorly. Yes, the article is suitable for this manuscript. The text indicating the importance of this work should be added in the manuscript. Also, the future application for which these materials can be used should be added in the abstract. No, the manuscript is not structured. There should be a section 'Results and Discussion' in which there should be different subsections of XRD, FTIR and FESEM. In these subsections, the discussion of both the materials should be included. Yes, the manuscript seems to be scientifically correct and significant. Few more references of recent times should be included in the manuscript, specially in the synthesis methods, properties and applications part. Some suggestions are here. http://dx.doi.org/10.1016/j.jpccs.2024.112110, http://dx.doi.org/10.1088/1402-4896/ad0d93, http://dx.doi.org/10.1021/acsanm.3c06017, http://dx.doi.org/10.1016/j.nxmte.2024.100246 <p>Additional Comments:</p> <ol style="list-style-type: none"> There should be a gap between values and units throughout the manuscript. Introduction may be divided into short paragraphs instead of continuous text. Abbreviations have been elaborated again and again in the manuscript. For instance, Silver nanoparticles (AgNPs) is written in line 6, page 2. After this, the next 6th line again indicates Silver nanoparticles (AgNPs). Chemical and reagents section again indicates this. Same for GO, HM and other abbreviations throughout the manuscript. Also, at some places, full forms are used in the further text even after mentioning the abbreviations in the starting. The obtained results should be compared with the previously published results. Typographical and grammatical errors must be checked throughout the manuscript. For instance, spelling of experimental is wrong in section 2 heading and spelling of nanoparticles is wrong in the heading of synthesis section. Abbreviations of XRD, FT-IR and FESEM are directly used without mentioning their full forms. In the abstract, FESEM is written while in instrumentation, SEM is written along with its make and model. The uniformity should be there in the manuscript. Some non-scientific vague terms are there in the manuscript, like 'autoclaving procedure'. 	

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	<p>9. Sections 3 should be named as 'Results and Discussion' in which subsections may be included.</p> <p>10. Figure 1 is not referred in the text.</p> <p>11. "As you look at the XRD pattern, the peaks at 38.12, 44.31, 64.46, and 77.41" This text should be revised to be more scientific. Also, degree should be mentioned with these values.</p> <p>12. "show the (111), (200), (220), and (311) hkl parameters" Instead of mentioning these as hkl parameters, these should be mentioned as hkl planes.</p> <p>13. All the figures are of very low quality and must be revised before publication. IN XRD pattern, units and planes should be written and the scale of x-axis should be changed to see the values clearly. Also, the weight of border lines should be reduced.</p> <p>14. FT-IR spectra of Ag-NPs is missing in the manuscript.</p> <p>15. There is no analysis in XRD and FESEM sections. It seems like a major part of the text is missing from the paper. These sections must be majorly revised to indicate the obtained results and their significance.</p> <p>16. In first paragraph of the introduction, the authors have mentioned various synthesis methods for the nanomaterials. Some synthesis methods are missing from this list which may be found in manuscript http://dx.doi.org/10.1007/978-981-16-9523-0_61. Also, few references may be included for the examples of the mentioned synthesis routes. http://dx.doi.org/10.1016/j.mseb.2024.117390 http://dx.doi.org/10.1016/j.mtsust.2024.100823</p> <p>17. Conclusion seems to be the repetition abstract and obtained results. It should be revised to imply important findings.</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>The language should be revised before publication. Typographical and grammatical errors exist in the manuscript. Also, the English quality should be improved.</p>	
<p>Optional/General comments</p>		

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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

Name:	Shreya
Department, University & Country	Netaji Subhas University of Technology, India