

**Review Form 3**

Journal Name:	<a href="#">Asian Journal of Geological Research</a>
Manuscript Number:	Ms_AJGER_130213
Title of the Manuscript:	Zinc Oxide Polyscale Designer Particulates and its Applications
Type of the Article	Research Article

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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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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### Review Form 3

#### **PART 1:** Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.</b>	This manuscript is significant for the scientific community as it presents an innovative approach to synthesizing selectively doped zinc oxide (ZnO) designer particulates with tunable morphology, size, and properties. The use of a hydrothermal synthesis method combined with systematic doping and surface modification offers valuable insights into material engineering. The detailed study of the effects of dopants, surfactants, and mineralizers on ZnO characteristics provides a foundation for optimizing its applications in various fields, including electronics, photonics, and catalysis. Moreover, the comprehensive characterization using advanced techniques enhances the understanding of structure-property relationships, paving the way for future advancements in functional material design.	The method used here is very innovative approach and cost effective process.  ZnO metal oxides is very eco-friendly, non toxic nanoparticles with many applications owing to current trends.  The ZnO synthesized is highly controlled with specific size and shape with desired morphology.
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	The current title "Selectively Doped Zinc Oxide Polyscale Designer Particulates " is not appropriate. Title need to be modify in such a way that it will provide prime information of this research article so that readers may get attracted to the article.	<b>Zinc Oxide Polyscale Designer Particulates and its Applications</b>
<b>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</b>	Abstract Part of the central content is not clearly expressed, and the key point of the article is not highlighted. Try to write the abstract in 250 words which will give the glimpse of work conducted and findings of the research.	Now it corrected.
<b>Is the manuscript scientifically, correct? Please write here.</b>	Yes	Yes
<b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b>	Few recent references need to be added based on the hydrothermal synthesis of ZnO. Kindly add following references in this article: 1. Rai, R. S., Bajpai, V., Khan, M. I., Elboughdiri, N., Shanableh, A., & Luque, R. (2023). An eco-friendly approach on green synthesis, bio-engineering applications, and future outlook of ZnO nanomaterial: A critical review. <i>Environmental Research</i> , 221, 114807. 2. Rai, R. S. (2024). Development of hydrophilic carbon fiber textiles using seed-assisted hydrothermal deposition of ZnO nanostructures for enhanced interfacial interaction in CFRP composites. <i>Ceramics International</i> , 50(24), 52871-52880. 3. Ravi Shankar Rai, K. Payal Senapaty, Nandkishor Marotrao Sawai, Milind Motiram Patil, Vivek Bajpai. Hydrothermal modification of carbon fiber fabrics by ZnO nanorods for mechanical strengthening of CFRP laminates. <i>Journal of Polymer and Composites</i> . 2024; 11(12):127-139. 4. Rai, R. S., & Bajpai, V. (2024). Surface functionalization of carbon fiber by hydrothermally synthesized ZnO nanostructures for mechanical strengthening of polymer composites. <i>Polymer Composites</i> , 45(3), 2012-2031. 5. Rai, R. S., & Bajpai, V. (2023). One-step microwave synthesis of surface functionalized carbon fiber fabric by ZnO nanostructures. <i>Advances in nano research</i> , 14(6), 557-573.	Yes

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Is the language/English quality of the article suitable for scholarly communications?	<ul style="list-style-type: none"><li>There are many language issues in the manuscript. It is out of scope for me to list all these issues here so try to review entire article for their language issue.</li><li>There are several grammatical mistakes which is affecting the flow of the article should be removed.</li><li>It is very important that, along with the content improvement, the language of the paper should be very good. Please make sure that a native speaker checks thoroughly through the whole paper. If this is not possible, please use a professional editing service</li></ul>	Done
Optional/General comments	<ul style="list-style-type: none"><li>The introduction of this work need to modify in such a way that the research problem &amp; scope for choosing the work Selectively Doped Zinc Oxide Polyscale Designer Particulates.</li><li>Mention the comparative assessment of the existing work with the current work in the introduction section.</li><li>The preparation process description is mixed with a lot of unnecessary information. It is suggested to make this part concise and highlight the key points.</li><li>The characterization work of this article is good. However for proper examination and analysis of ZnO nanoparticles i suggest you to perform TEM analysis and XPS study for better findings.</li><li>The explanations of the figures need to be clearly described in the text. Also compare the findings of your characterization with the previously published work. Show how your method and parameters are producing the better results.</li><li>All the figures in the article are not clear or the quality of the pictures is low, resulting in inconsistent with the text description. It is suggested to improve the quality of the pictures and enhance the persuasiveness of the article.</li><li>Irrespective of histogram, the size distribution of nanoparticles should be explained with figures using some statistical tools. How the size of grown nanoparticles are varying. Also compare the size distribution of nanoparticles calculated from SEM image with XRD finding.</li><li>The XRD findings should be explain more by calculating FWHM and explaining W-H plot.</li><li>Details the procedure of marking the (hkl) planes in the XRD analysis and discuss preferential orientation of ZnO.</li><li>There is something wrong with the presentation of the conclusion. The presentation should not focus on the experimental process. It is suggested to revise it.</li></ul>	Ok done.

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)	No