

Review Form 1.7

Journal Name:	Chemical Science International Journal
Manuscript Number:	Ms_CSIJ_112261
Title of the Manuscript:	Flexible Pressure Sensor Based on Carbon Black/PVDF Nanocomposite
Type of the Article	Original Research Article

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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"> The manuscript is significant for the scientific community as it presents a piezoresistive flexible pressure sensor based on a CB/PVDF composite. The sensor's potential applications in biomedical, robotic, and automotive sensing make it relevant and valuable. The title is suitable as it clearly reflects the content of the manuscript, describing the fabrication and performance of a flexible pressure sensor using the CB/PVDF nanocomposite. The abstract provides a comprehensive overview of the study, summarizing the fabrication process, characteristics of the CB/PVDF composite, and the sensor's performance metrics. It effectively conveys the key aspects of the research. The subsections and structure of the manuscript are well-organized, facilitating a logical flow of information. Can you provide more detailed information on the wet-casted method used for fabricating the CB/PVDF composite and the subsequent deposition onto the flexible PE substrate? Could you clarify the methodology for evaluating sensitivity, response time, and recovery time? Please provide a comprehensive explanation of how these metrics were measured and calculated for different pressures and vibration modes. The manuscript appears scientifically correct. While good repeatability and reproducibility characteristics are mentioned, could you provide more specific data and statistical analyses to support these claims? Include detailed results and statistical measures to assess stability under different loading and unloading pressures. Please incorporate recent literature from 2020 to 2024 and add the references [Journal of Materials Science and Metallurgy 2021, 2, 102; Applied Surface Science Advances 2023, 14, 100392; Chemical Physics Impact 2023, 7, 100387; Materials Science for Energy Technologies 2019, 2, 203.] is appropriately contextualizes the study. <p>Additional questions: How does the proposed flexible pressure sensor compare to existing sensors in terms of performance and applicability for biomedical, robotic, and automotive sensing applications? Can you provide more insights into its potential advantages? Could you provide additional details on the investigation of dynamic characteristics mentioned in the paper? Describe the experimental setup and conditions for testing the sensor's response to dynamic pressures. Can you enhance the conclusion section by summarizing the key findings and their implications? Additionally, what are your suggestions for future work, such as potential improvements to the sensor design or new applications? Addressing these questions will contribute to a more comprehensive understanding of the research and strengthen the paper's overall impact and clarity.</p>	
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> Is language/English quality of the article suitable for scholarly communications? 	<p>Quality was Ok, but avoid the typo errors, spelling and grammatical mistakes.</p>	
<p>Optional/General comments</p>		

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PART 2:

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

Reviewer Details:

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