

Journal Name:	<a href="#">Journal of Applied Chemical Science International</a>
Manuscript Number:	<b>Ms_JACSI_12308</b>
Title of the Manuscript:	<b>Formulation and Thermal Analysis of Waste-Derived PET-Rice husk composite: A sustainable Material Solution</b>
Type of the Article	

**General guidelines for the 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.

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**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	Reviewer's comment	<b>Author's Feedback</b> ( <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. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</b>	The manuscript provides valuable insights into the development and characterization of a composite material made from waste plastic water bottles (PET) and rice husk (RH), highlighting its potential applications in sustainable materials engineering. The comprehensive use of various analytical techniques, including burning rate tests, SEM, TGA, and DTA, adds robustness to the study and ensures a thorough evaluation of the material's properties. The findings, such as the thermal stability and structural integrity of the PET-RH composite, present a promising alternative to conventional materials, emphasizing the importance of recycling and the utilization of agricultural waste. Overall, the manuscript significantly contributes to the field of sustainable composite materials, offering a viable solution for reducing environmental impact and promoting resource efficiency.	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	The title of the article is somewhat suitable but could be more specific to reflect the main focus and findings of the study. A more detailed title could enhance its clarity and attractiveness to potential readers. Here is a suggested alternative title: "Development and Characterization of Polyethylene Terephthalate-Rice Husk (PET-RH) Composites: Thermal Stability, Morphological Analysis, and Burning Rate Evaluation"	

<p><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></p>	<p>The abstract is comprehensive and provides a detailed overview of the study. It would be more concise if emphasized the most significant results and their implications</p>	
<p><b>Are subsections and structure of the manuscript appropriate?</b></p>	<p>The subsections and structure of the manuscript are generally appropriate and cover the key aspects of the study.</p>	
<p><b>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</b></p>	<p>The manuscript is scientifically robust and technically sound as it employs a comprehensive array of analytical techniques, including burning rate tests, scanning electron microscopy (SEM), thermogravimetric analysis (TGA), and differential thermal analysis (DTA) to thoroughly evaluate the properties of the PET-RH composite. The methodology is clearly outlined, allowing for reproducibility and validation of results. The integration of both experimental and analytical approaches provides a holistic understanding of the composite's thermal stability, structural morphology, and combustion characteristics. The results are consistently interpreted and compared with existing literature, demonstrating the composite's potential applications and its advantages over conventional materials, thereby validating the study's scientific merit.</p>	
<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b> =</p>	<p>The references included in the manuscript are generally sufficient and relevant to the study. However, the reference list should be reviewed to ensure they are up-to-date, as some references might be older. Including more recent studies would strengthen the context and relevance of the research. Here are a few suggestions for additional references that could be included to enhance the manuscript: Faruk, O., Bledzki, A. K., Fink, H. P., &amp; Sain, M. (2012). Biocomposites reinforced with natural fibers: 2000–2010. <i>Progress in Polymer Science</i>, 37(11), 1552-1596. Vyazovkin, S., Burnham, A. K., Criado, J. M., Pérez-Maqueda, L. A., Popescu, C., &amp; Sbirrazzuoli, N. (2011). ICTAC Kinetics Committee recommendations for performing kinetic</p>	

	<p>computations on thermal analysis data. <i>Thermochimica Acta</i>, 520(1-2), 1-19.</p> <p>Kim, J. K., &amp; Pal, K. (2010). <i>Recent advances in the processing of wood-plastic composites</i>. Springer Science &amp; Business Media.</p> <p>Including these more recent references would provide a broader and updated context for the study, demonstrating its relevance to current research trends and technological advances.</p>	
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<p><u>Minor REVISION</u> comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>The language and English quality of the article are generally suitable for scholarly communication. However, there are a few areas where improvements could be made to enhance clarity, readability, and overall professionalism.</p>	
<p><u>Optional/General</u> comments</p>	<ol style="list-style-type: none"> <li>1. Ensure all figures and tables are of high quality and add value to the text. Consider adding more detailed captions to explain what each figure or table illustrates.</li> <li>2. If possible, include graphical abstracts or summary diagrams to visually summarize key findings.</li> <li>3. Provide additional details on experimental methods where necessary to ensure reproducibility. For example, the exact conditions used during the SEM analysis or any specific controls used during the burning rate tests.</li> <li>4. Include a comparative analysis with similar studies to contextualize your results. This can help highlight the significance and practical applications of your findings.</li> <li>5. Suggest specific areas for future research or potential improvements to the composite material. This shows the broader impact of your work and invites further investigation.</li> <li>6. Discuss potential real-world applications of the PET-RH composite in more detail. How can this material be used in industry or other fields? What are the benefits and limitations?</li> <li>7. Consider getting the manuscript reviewed by a native English speaker or a professional editor to further polish the language and presentation.</li> <li>8. Ensure consistency in formatting, terminology, and style throughout the manuscript. This includes uniform use of units, consistent naming of materials, and standardization of references.</li> </ol>	

**PART 2:**

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

**Reviewer Details:**

Name:	<b>Madepalli Venkata Rao</b>
Department, University & Country	<b>SRKR Engineering College, India</b>