

### Review Form 3

Journal Name:	<a href="#">Journal of Engineering Research and Reports</a>
Manuscript Number:	Ms_JERR_130321
Title of the Manuscript:	Investigation of Refining Processes that Improve Liquid Metal Quality in Aluminum Production
Type of the Article	

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

	<b>Reviewer's comment</b>	<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. A minimum of 3-4 sentences may be required for this part.</b>	This manuscript is a significant contribution to the scientific community, particularly in the field of metallurgy and materials science. It addresses the critical issue of liquid metal quality in aluminum production, focusing on the role of refining processes to optimize product performance. By systematically analyzing parameters such as flux amounts, cleaning times, and nitrogen gas pressure, the study provides actionable insights for improving microstructure, density, and hydrogen levels in aluminum alloys. The findings not only enhance the understanding of aluminum alloy processing but also offer practical guidance for industrial applications, advancing the production of high-quality aluminum products.	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	The current title, "Investigation of Refining Processes that Improve Liquid Metal Quality in Aluminum Production," is clear and descriptive but could be more engaging and concise. A stronger alternative might emphasize the study's focus on optimization and results. Here are a few suggestions: (optional) 1. "Optimizing Refining Processes for Superior Liquid Metal Quality in Aluminum Production" 2. "Enhancing Liquid Metal Quality in Aluminum Alloys: A Study on Refining Techniques" 3. "Refining Aluminum Alloys: Improving Liquid Metal Quality Through Process Optimization" These alternatives maintain the technical focus while aiming to capture readers' attention more effectively.	

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<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 of the article is generally comprehensive and provides a solid overview of the study's scope, methodology, and key findings. However, there is room for improvement to make it more structured and impactful. Below are some suggestions:</p> <p>Additions:</p> <ol style="list-style-type: none"> <li>1. Highlight the significance: <ul style="list-style-type: none"> <li>o Briefly state the broader implications of the findings for the aluminum industry or material science.</li> <li>o Explain how the study contributes to addressing current challenges in aluminum production.</li> </ul> </li> <li>2. Emphasize key results: <ul style="list-style-type: none"> <li>o Provide a more specific mention of quantitative results, such as the percentage improvement in density index, bifilm index, or hydrogen levels.</li> </ul> </li> <li>3. Discuss applications: <ul style="list-style-type: none"> <li>o Mention potential industrial or commercial applications of the findings to contextualize the study's impact.</li> </ul> </li> </ol> <p>Deletions:</p> <ol style="list-style-type: none"> <li>1. Remove excessive details: <ul style="list-style-type: none"> <li>o The mention of specific parameters like "flux amount of 1.42 kg/ton" or "gas removal time of 4.16 kg/min" might be too detailed for the abstract. Such specifics are better suited for the main body of the paper.</li> </ul> </li> <li>2. Avoid redundancy: <ul style="list-style-type: none"> <li>o Some parts reiterate the importance of flux usage and gas removal, which could be streamlined to save space for other critical points.</li> </ul> </li> </ol>	
<p><b>Is the manuscript scientifically, correct? Please write here.</b></p>	<p>Based on the content provided in the manuscript, the study appears to be scientifically sound and methodologically rigorous. The research outlines clear objectives, employs appropriate methodologies, and presents detailed findings.</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>Please add 2-3 2023 and 2-3 2024 relevant references.</p>	
<p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>The language of the manuscript is generally suitable for scholarly communication, with technical terminology and clear explanations. However, there are areas where the readability, conciseness, and fluency can be improved to align better with the standards of academic writing. Use any language editing service or do with Grammarly premium.</p>	
<p><b>Optional/General</b> comments</p>	<p>Mention the sources for each table and images.</p> <p>Recheck all references for style and accuracy.</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><b>Are there ethical issues in this manuscript?</b></p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

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**Reviewer Details:**

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