

Review Form 1.7

Journal Name:	Journal of Energy Research and Reviews
Manuscript Number:	Ms_JENRR_107030
Title of the Manuscript:	Effects of a cyclone dimensions on quality of syngas produced with a wood-fired biomass gasifier
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><u>Compulsory REVISION comments</u></p> <ol style="list-style-type: none"> 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. 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"> 1. This manuscript is of significant importance to the scientific community, particularly in the field of renewable energy and biomass gasification. It addresses a critical issue faced by many developing countries, such as Burkina Faso, where there is a heavy dependence on biomass for energy needs. By focusing on the design, fabrication, and testing of a second separator cyclone, the study aims to improve the quality of syngas produced during gasification processes. This research has the potential to enhance the efficiency and viability of biomass gasification, which is crucial for achieving sustainable and decentralized energy sources. Moreover, the technical insights and innovative approaches presented in this manuscript can provide valuable guidance for similar projects in regions facing energy challenges. 2. The title of the article, "Effects of Cyclone Dimensions on Quality of Syngas Produced with a Wood-Fired Biomass Gasifier," is generally suitable as it accurately reflects the main focus of the study. 3. The abstract of the article provides a general overview of the research, but it could be made more comprehensive. Here are some aspects to consider for improvement: Introduction to the Research Problem: The abstract could benefit from a brief introduction to the specific problem or challenge addressed by the research. This would help readers quickly understand the context and importance of the study. Methodology and Key Findings: While the abstract mentions the design, fabrication, and testing of the second separator cyclone, it would be more comprehensive if it briefly outlined the methodology used and highlighted key findings or results. This would provide a glimpse into the research approach and outcomes. Conciseness: While adding more detail, it's important to keep the abstract concise. Aim to provide essential information in a clear and succinct manner. Conclusion: Conclude the abstract by summarizing the significance or implications of the research. This can help readers understand why the study is valuable. 4. The manuscript generally follows a logical structure with appropriate subsections. However, there are a few areas where the structure and subsections could be improved for better clarity and organization: Materials and Process Section: In the "Materials and Process" section, consider breaking down the subsections into more granular parts for better organization. For example, you could have separate subsections for "Gasifier Design," "Cyclone Separator," "Burner Design," and "Experimental Setup." This would make it easier for readers to follow the description of materials and the gasification process. 5. Based on the information provided in the manuscript, it appears scientifically correct in terms of the research conducted and the methodology employed. The study focuses on the design, fabrication, and testing of a second separator cyclone in the context of biomass gasification, particularly in Burkina Faso. The research aims to improve the quality of syngas produced during wood-fired biomass gasification by modifying the cyclone dimensions. 6. The references in the manuscript provide a reasonable foundation for the research and appear to cover relevant literature in the field of biomass gasification and related topics. <p>Additional suggestions: Comparison with Previous Research: It would be valuable to compare the findings and outcomes of your study with relevant research in the field. This can help highlight the novelty and significance of your modifications to the cyclone separator.</p> <p>Discussion on Technical Limitations: Mentioned in the manuscript is the qualitative nature of some</p>	

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	<p>of the results due to technical limitations. Consider discussing these limitations in more detail, including potential implications for the study's conclusions.</p> <p>Future Work: In the "Conclusion" section, briefly mention any planned or potential future work related to this research project. This can provide continuity and demonstrate a forward-looking perspective.</p>	
<p><u>Minor REVISION</u> comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>The language and English quality in the article are generally suitable for scholarly communications. The manuscript is readable, and the language used effectively conveys the research objectives, methods, and findings.</p>	
<p><u>Optional/General</u> comments</p>	<p>Overall, the manuscript presents valuable research on the improvement of syngas quality in wood-fired biomass gasification by modifying cyclone dimensions. The study addresses an important issue in the context of renewable energy and has the potential to contribute significantly to the field, especially in regions heavily reliant on biomass for energy.</p>	

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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