Review Form 1.7

Journal Name:	**Journal of Energy Research and Reviews**
Manuscript Number:	**Ms_JENRR_97258**
Title of the Manuscript:	**Bio-Electrochemical Reactor: Inoculated H-type Microbial Fuel Cell for Wastewater Treatment and Energy Recovery**
Type of the Article	**Original Research Article**

General guideline for 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.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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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)*
Compulsory REVISION comments **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.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	1. The manuscript presents a comprehensive analysis of the performance of the Microbial Fuel Cells (MFCs) in terms of voltage generation, removal of organic matter from the wastewater, as measured by parameters such as Biochemical Oxygen Demand (BOD), Chemical oxygen Demand (COD), Total Nitrogen (TN) and Total Phosphorous (TP). This information can be useful for researchers and practitioners who are interested in developing MFCs for practical applications, such as wastewater treatment and energy production. 2. Potential of electricity generation and wastewater treatment of organic brewery effluent using Inoculated H-type Microbial Fuel Cell 3. Overall, the abstract provides a clear overview of the study's objectives, methods, and findings. Some observations which can be looked at, a. Specify the research question: It would be helpful to state the specific research question that the study aims to answer. For example, "This study investigated the effect of process variables on the bio-electrical performance of H-type microbial fuel cells fueled with brewery wastewater and inoculated with distillery plant waste." b. Provide more context: While the abstract provides a good overview of the study's background. For example, why is it important to develop sustainable technologies for energy production from waste materials? What is the current state of research on microbial fuel cells and how does this study contribute to the field? c. Clarify the results: The abstract provides some quantitative results, but it would be helpful to clarify what these results mean in practical terms. For example, how does the removal efficiency of COD, BOD, TN, and TP compare to other wastewater treatment technologies? 4. The structure of sections and sub-sections is well aligned in the manuscript and does not need any changes. 5. The manuscript does seem scientifically correct with some observations on improvisation, a. The equations used to calculate current density, power density, and Coulombic efficiency are given, but it would be helpful to provide some explanation or context for these calculations. b. It would be helpful to provide a diagram or figure to better illustrate the design and setup of the DCMFCs. c. There is no account of repeatability for an experiment to calculate accuracy (mean, median, average, etc.) d. It is not clear from the description how the anode and cathode chambers were separated. Was a membrane used or was there simply a physical barrier between the two chambers? e. More information could be provided on the specific characteristics of the wastewater used, such as its chemical composition and organic content. f. The methods used for measuring BOD, COD, TN, and TP should be specified. g. It would be helpful to provide a brief explanation of why these specific parameters were chosen to measure the performance of the MFC, and how they are related to the MFC's function. h. It would be helpful to include a brief discussion of the limitations of the study. For instance, are there any factors that may have influenced the results that were not accounted for in the experiment? i. The conclusion could briefly suggest areas for future research. For example, are there any aspects of this study that could be further explored or expanded upon in future research? **6.** The references provided seem to be relevant to the text provided but, are 2019 and older. Having recent references will make the manuscript much stronger. For example, Insights into the development of microbial fuel cells for generating biohydrogen, bioelectricity, and treating wastewater	

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	Author links open overlay panelShams Forruque Ahmed a, M. Mofijur b c, Nafisa Islam a, Tahlil Ahmed Parisa a, Nazifa Rafa d, Awais Bokhari e f, Jiří Jaromír Klemeš e, Teuku Meurah Indra Mahlia b g	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	a. Check the grammar and sentence structure: The current description contains several grammatical errors and awkward sentence structures. b. Use consistent terminology: The abstract uses both "microbial fuel cell" and "dual-chamber microbial fuel cell" interchangeably, but it would be clearer to use a consistent term throughout the abstract.	
Optional/General comments		

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)*	

Reviewer Details:

Name:	**Sanjay Purswani**
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