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Manuscript: **"Parametric Simulation and Exergy Analysis of a 30w Ethanol Fuel Cell: A Theoretical Approach"**

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Peer review:

Reviewer 1: Dr. T.O) Suoware, University of Nigeria, Nsukka

Reviewer 2: Blinded

Reviewer 3: Biirah Judith, Kyambogo University (Uganda)

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Reviewer Name: BIIRAH JUDITH	Email:
University/Country: KYAMBOGO UNIVERSITY (UGANDA)	
Date Manuscript Received: 7th/10/2021	Date Review Report Submitted: 8th/10/2021
Manuscript Title: PARAMETRIC SIMULATION AND EXERGY ANALYSIS OF A 30W ETHANOL FUEL CELL: THEORETICAL APPROACH	
ESJ Manuscript Number: 1051/21	
You agree your name is revealed to the author of the paper: YES Yes/No	
You approve, your name as a reviewer of this paper, is available in the "review history" of the paper: YES Yes/No You approve, this review report is available in the "review history" of the paper: YES Yes/No	

Evaluation Criteria:

Please give each evaluation item a numeric rating on a 5-point scale, along with a thorough explanation for each point rating.

Questions	***Rating Result*** [Poor] **1-5** [Excellent]
1. The title is clear and it is adequate to the content of the article.	**4**
(the Title is clear though a vowel "A" needs to be inserted before theoretical)	

2. The abstract clearly presents objects, methods and results.	**3**
The abstract is clear but does not specify to the reader objects, methods and results, though they are indirectly included in the section.	
3. There are few grammatical errors and spelling mistakes in this article.	**3**
(There are typos that need to be attended to.)	
4. The study methods are explained clearly.	**2**
(not really)	
5. The results are clear and do not contain errors.	**3**
(True though an expert in the area should check them keenly. It is not my field, so an eye of an expert in this area is required to confirm this. Figures may look attractive while in the real sense they are communicating something else.). The discussion section is not backed by literature which I find strange.	
6. The conclusions or summary are accurate and supported by the content.	**2**
(true. But still an expert should look at this.)	
7. The references are comprehensive and appropriate.	**3**
(Some references are outdated. APA style is demanding both in-text and reference list.)	

Overall Recommendation (mark an X with your recommendation)：

Accepted, no revision needed	
Accepted, minor revision needed	**X**
Return for major revision and resubmission	
Reject	

Comments and Suggestions to the Author(s):

The authors of this work need to attend to typos that I have highlighted in the manuscript. Use of outdated literature needs to be addressed as well as APA formatting.

Comments and Suggestions to the Editors Only:

This work needs to be read by an expert in the area of engineering to see if the paper is really appropriate before publication is made. I have only addressed the general technical areas of research since am not an expert in this area. Otherwise the authors should pay attention to my comments in the manuscript to improve the document.

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Reviewer Name: Dr. T.O) Suoware	
University/Country: University of Nigeria, Nsukka	
Date Manuscript Received: 25/10/21	Date Review Report Submitted: 26/10/21
Manuscript Title: Parametric Simulation And Exergy Analysis Of A 30w Ethanol Fuel Cell: Theoretical Approach	
ESJ Manuscript Number: 51.10.2021	
You agree your name is revealed to the author of the paper: Yes	
You approve, your name as a reviewer of this paper, is available in the "review history" of the paper: Yes You approve, this review report is available in the "review history" of the paper: Yes	

Evaluation Criteria:

Please give each evaluation item a numeric rating on a 5-point scale, along with a thorough explanation for each point rating.

Questions	***Rating Result*** [Poor] **1-5** [Excellent]
1. The title is clear and it is adequate to the content of the article.	**4**
The title is good and shows clearly what it is intended to achieve	
2. The abstract clearly presents objects, methods and results.	**4**
3. There are few grammatical errors and spelling mistakes in this article.	**4**
(Please insert your comments)	
4. The study methods are explained clearly.	**4**
(Please insert your comments)	
5. The results are clear and do not contain errors.	**3**
(Please insert your comments)	

6. The conclusions or summary are accurate and supported by the content.	**3**
The conclusion should begin with an introduction of what the article intends to solve and be concise with your findings.	
7. The references are comprehensive and appropriate.	**4**
(Please insert your comments)	

Overall Recommendation(mark an X with your recommendation)：

Accepted, no revision needed	**Accepted**
Accepted, minor revision needed	
Return for major revision and resubmission	
Reject	

Comments and Suggestions to the Author(s):

The article is generally clear and the theoretical approach adequate

Comments and Suggestions to the Editors Only:

The article may be published

ESJ *Manuscript Evaluation Form 2021*

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NOTE: ESJ promotes peer review procedure based on scientific validity and technical quality of the paper (not perceived the impact). You are also not required to do proofreading of the paper. It could be recommended as part of the revision.
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Date Manuscript Received:19.10.2021	Date 30.10.2021Review Report Submitted:
Manuscript Title: **parametric simulation and exergy analysis of a 30 w ethanol fuel cell -a theoretical approach**	
ESJ Manuscript Number: 1051/21	
You agree your name is revealed to the author of the paper: no	
You approve, your name as a reviewer of this paper, is available in the "review history" of the paper: no You approve, this review report is available in the "review history" of the paper: yes	

Evaluation Criteria:

Please give each evaluation item a numeric rating on a 5-point scale, along with a thorough explanation for each point rating.

Questions	***Rating Result*** [Poor] **1-5** [Excellent]
1. The title is clear and it is adequate to the content of the article.	**4**
(Please insert your comments) **no comment**	
2. The abstract clearly presents objects, methods and results.	**4**
no comment	
3. There are few grammatical errors and spelling mistakes in this article.	**2-3**
no comment	
4. The study methods are explained clearly.	**3**
no comment	
5. The results are clear and do not contain errors.	**2**
The results are influenced by the basic assumptions set such: *"… transfer resistance for the Oxygen reduction reaction negligible..."* *and* *" All likely chemical energy in the reaction went into electrical work, hence there is no heat transfers and no entropy change"* *Such assumptions are not acceptable and in partial contrast with the Laws of therm*	

o-fluid dynamics and electron-chemistry. The Entropy in therm o-fluids and electric-chemical transformations cannot be considered unchanged.	
6. The conclusions or summary are accurate and supported by the content.	**3**
The conclusions and summary are supported by the content if we do not consider the inaccuracies originating from what was previously expressed in the comment under poin n.4	
7. The references are comprehensive and appropriate.	**3**
The references expressed in the form [CitationRen 21/l 1033] do not make it clear which of the bibliographic references they refer to. It seems more appropriate to mark the references with numbers which can than be found in the Bibliography. Some references cite studies of the years 1999, 2005, 2006 and 2008 therefore studies perhaps scientifically outdated compared to those made in more modern periods.	

Overall Recommendation (mark an X with your recommendation)：

Comments and Suggestions to the Author(s):

No comment

Comments and Suggestions to the Editors Only:

Please, analyze comment of point n.4