

Review Form 3

Journal Name:	Asian Journal of Chemical Sciences
Manuscript Number:	Ms_AJOCS_127312
Title of the Manuscript:	Hydrogen Fuel Cells for Distributed Power Generation: A Review of Technologies, Applications, and Performance
Type of the Article	Review 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. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
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.	This manuscript reviews hydrogen fuel cells as a clean and efficient energy solution for distributed power generation, consolidating key developments and challenges in hydrogen technology from production to application. Its in-depth analysis of various fuel cell types and their operating principles offers valuable insights into performance and feasibility. While the structured approach effectively addresses gaps like cost and infrastructure issues, a deeper dive into policy implications and real-world case studies would enhance its impact. Overall, it's a solid contribution to the discussion on sustainable energy technologies.	
Is the title of the article suitable? (If not please suggest an alternative title)	The article title, Hydrogen Fuel Cells for Distributed Power Generation: A Review of Technologies, Applications, and Performance, is clear and informative, accurately reflecting the paper's content. It effectively covers the key topics, including hydrogen fuel cell technologies, applications, and challenges in distributed power generation. For a more engaging or targeted title that emphasizes sustainability and future potential, consider these options: 1. "Advancing Distributed Power Generation with Hydrogen Fuel Cells: Technologies, Applications, and Challenges" 2. "Hydrogen Fuel Cells: A Pathway to Sustainable Distributed Energy Solutions." These alternatives highlight innovation and environmental benefits, making them appealing to a broader audience.	
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.	Yes. This article's abstract is clear and well-structured, covering essential topics like types of hydrogen fuel cells, key components, production methods, applications, and challenges. It provides a concise overview of the manuscript and emphasizes the relevance of the review. Suggestions for Improvement: 1. Specify Challenges: Mention key hurdles such as cost, efficiency, durability, and infrastructure needs for better clarity. 2. Emphasize Sustainability: Highlight the role of hydrogen fuel cells in cutting carbon emissions and supporting sustainable energy transitions. 3. Mention Findings or Trends: Include key insights or recent trends to make the abstract more engaging.	
Are subsections and structure of the manuscript appropriate?	The manuscript is well-structured and effectively organized for a comprehensive review. It follows a logical progression, starting with an introduction, then covering types of fuel cells, hydrogen production methods, applications, challenges, and concluding with key insights. However, there is room to make the content clearer and more accessible.	

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<p>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.</p>	<p>The manuscript is scientifically solid and technically well-grounded, drawing from credible sources and providing clear explanations of hydrogen fuel cell technology. It covers different types of fuel cells, their operating principles, and hydrogen production methods, all supported by established research to ensure accuracy. The inclusion of equations, schematics, and performance comparisons adds technical depth and enhances clarity. Moreover, the discussion of key challenges and future directions reflects a thorough understanding of the topic and its importance in driving sustainable energy solutions forward.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. -</p>	<p>Yes, but can add more latest references. Suggestions for Improvement: Include Recent Studies: Adding studies from the last five years on advancements in hydrogen storage, cost-effective production methods, and commercialization efforts would make the paper more current and relevant. Highlight Emerging Trends: Consider including references on green hydrogen production, integration with renewable energy systems, and improvements in fuel cell durability and scalability. Policy and Economic Considerations: To connect the technology to real-world applications, it's essential to include studies on policy frameworks and economic analyses related to hydrogen fuel cell adoption.</p>	
<p><u>Minor REVISION</u> comments Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Yes</p>	
<p><u>Optional/General</u> comments</p>	<p>The manuscript has several issues with grammar, formatting, and adherence to standard academic writing conventions. Here are some specific observations and suggestions for improvement:</p> <p>1. Grammar and Language Issues: Punctuation Errors: Some sentences have missing or misplaced commas, while semicolons and periods are either overused or inconsistently applied. Capitalization: Certain terms are unnecessarily capitalized (e.g., "Fuel Cells" mid-sentence), and acronyms are not consistently formatted (e.g., "pemfc" should be "PEMFC"). Wordiness: Many sentences are overly long and could be simplified into shorter, more concise statements for better readability. Tense Usage: There are inconsistencies in tense, with shifts between past and present (e.g., "Hydrogen is considered" versus "Hydrogen was acknowledged").</p> <p>2. Formatting Issues: Spacing: Double spaces between words or after punctuation appear in some places, and spacing between lists, paragraphs, and subsections is inconsistent. Font and Style: Some sections use varying font sizes or styles, disrupting uniformity. Figure and table captions also don't always align with standard academic conventions in terms of font size and style. Alignment: Text justification is inconsistent, leading to uneven paragraph edges that affect overall presentation.</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>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

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