|  |  |
| --- | --- |
|  | |
| Journal Name: | [**Journal of Engineering Research and Reports**](https://journaljerr.com/index.php/JERR) |
| Manuscript Number: | **Ms\_JERR\_139454** |
| Title of the Manuscript: | **Research Progress on Coatings for Fuel Cell Bipolar Plates** |
| Type of the Article | **Original Research Article** |

|  |  |  |
| --- | --- | --- |
| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** (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. A minimum of 3-4 sentences may be required for this part.** |  |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** |  |  |
| 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. |  |  |
| Is the manuscript scientifically, correct? Please write here. |  |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** |  |  |
| Is the language/English quality of the article suitable for scholarly communications? |  |  |
| Optional/General comments | Comments:  We appreciate the comprehensive coverage of surface modification techniques; however, several critical enhancements are recommended to strengthen the manuscript’s rigor and clarity.  1. Please add references and captions for all figures. Each figure (e.g., Figures 3, 5) must be properly cited and include source, context, and descriptive title.  2. In Section 2.1 PVD Technique include materials & deposition rates. Describe key attributes of PVDable materials? Provide typical figures: sputtering/evaporation rates range.  3. In Section 2.3.1 Cite typical acceptable porosity for durable coatings, e.g., 1–5% for barrier and wear resistance layers. Discuss the implications of higher porosity on corrosion and conductivity.  4. Add data tables to compare materials based on hardness, conductivity, adhesion, deposition temperature, and porosity to guide the choice of coating method.  5. Section 3.2 Include a table listing polymer types (PANI, PPy), deposition method (cyclic voltammetry, electrodeposition), dopants/additives (rGO, TiN), along with corrosion current density, ICR/contact resistance, and test conditions. This aids clarity and comparison.  6. Provide typical CVD deposition rates—often 10–100 nm/min or more depending on precursors and conditions. Cite examples to support these figures.  7. Emphasize why these techniques apply to bipolar plates—low thermal stress, enhanced corrosion resistance, low interfacial contact resistance, and durability in PEMFC environments. | Thank you very much for your suggestion, it helped a lot to improve my article. Combined with your suggestions, I have further refined the content of the article. I'll give credit to all the legends in the article, which I didn't realize before, and thank you very much for the advice you gave me. Again, I will provide references to important data sources for the article. I will also add a table to compare the experimental content in the article, which will be more conducive to the reader's understanding of the industry. Finally, thank you again for your advice |

|  |  |  |
| --- | --- | --- |
| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s Feedback** (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)* |  |