

# Review of: "On-Line Monitoring of Minor Oil Spills in Seawater Using Sediment Microbial Fuel Cells: A Preliminary Study"

Amit Prabhakar<sup>1</sup>

<sup>1</sup> Indian Institute of Information Technology Allahabad

Potential competing interests: No potential competing interests to declare.

## Suggestions for Improvement:

1. While this paper touched upon the novelty of sMFCs in oil spill detection, a broader review could further contextualize work within the field. Discussing more about the current technologies and their limitations would emphasize the importance of research.
2. Some figures, like the polarization curves and power density graphs, could benefit from clearer interpretation and discussion. Explaining the significance of observed trends and anomalies in relation to oil spill detection would enhance readers' understanding.
3. It could be beneficial to include control experiments where no oil is added to the sMFCs to compare baseline performance in seawater. This would help in isolating the effect of oil on voltage output more clearly.
4. Expanding on the environmental implications of using sMFCs for oil spill detection, including potential impacts on marine ecosystems and biodiversity, would strengthen the study's relevance.

## Technical and Editorial Recommendations:

1. Providing more detail on how the external resistances were chosen and the rationale behind the specific volumes of oil used for doping could clarify methodological decisions for the reader.
2. If possible, incorporating statistical analysis to assess the significance of results would add robustness to conclusions.
3. Discussing the environmental safety of deploying sMFCs in real-world scenarios, including any potential risks and how they might be mitigated, would address an important aspect of practical application.