

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

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Potential competing interests: No potential competing interests to declare.

Reviewers appreciate the novelty of this study about sediment Microbial Fuel Cells and the potential to detect oil spills in seawater. However, I have several recommendations to make the paper publishable after minor revisions.

- 1- Add more details about the experimental part (materials, weights of chemicals used, fabrication methods of each part of the cell) clearly.
- 2- Add a real photo of the fuel cell setup used during the experiments. Please show the place of the titanium collector.
- 3- Give a real photo of the sediment collected in this study.
- 4- Authors recommend explaining the anode and cathode mechanisms (reactions) before the experimental parts.
- 5- In Figure 1, the legend presents a mistake for the resistance (22 ohm).
- 6- In Figure 2, the y-axis of the power density curve is false, and the unit also. I recommend presenting the polarization curve (I-V) alone.
- 7- The change in voltage over time curves should be ameliorated in terms of quality. You can use Origin for curve plots. In the y-axis, please eliminate .000.
- 8- I propose to write the equations on separate lines, not within the text.
- 9- Why did you work only on minor oil spills? I see in section 2.3 that you cited the volume of motor oil (from 1 ml to 5 ml), then you note the total oil volume ranges from 1 ml to 10 ml). Please explain the difference between the volumes.
- 10- In section 2.3, authors indicated that the experiments were all done at room temperature around 1 PM. What is this???