

Bioelectrochemistry workshop  
12<sup>th</sup> -13<sup>th</sup> December 2024

Brought to you by the [Bioelectrochemical Development for Environmental Technology Working Group](#), this **2-day workshop** features **hands-on lab learning** and will be held at Newcastle University. This is a must for anyone working, or thinking of working, with bioelectrochemical systems.

A workshop of knowledge and interaction for researchers working or interested in bioelectrochemical systems for the environment. This event will strengthen your knowledge on bioelectrochemical systems and give you tools to improve the impact of your research. Attendants to this workshop will achieve the following objectives:

- 1) To obtain a Bioelectrochemical Systems handbook that contains info on microbial and electrochemical analyses.
- 2) To engage in a lab demonstration for microbial biofilm analysis.
- 3) To engage in a lab demonstration for polarisation and cyclic voltammetry analyses.
- 4) To participate in an outreach activity that provides tools to showcase bioelectrochemical systems research.

This workshop is partially subsidised by EBNet as such a contribution is asked from participants to cover catering, venues, and lab-consumables: **Registration fee: £100 pounds.**

What's new this year?

- Catch up with the working group, talk about your research advancements, reconnect, and update contacts.
- The microbial analysis workflow with the MinION v.10 will be explored in detail. We will construct the library, clean PCR products, and sequence them.
- We will conduct MFC polarisations using the potentiostat and compare results with manual polarisations. We will revise cyclic voltammetry and touch upon the application of impedance.
- Cap-a-pie will showcase a new performance on the "farming of microbes" followed by activities and discussions that propose ways for public dissemination on the role of microbes in the environment.

Bioelectrochemistry workshop  
12<sup>th</sup> -13<sup>th</sup> December 2024

**Timetable**

**Thursday 12th December 2024**

9:00- 9:30 Registration.

9:30 – 11:00 Welcome. 3MT Presentations. Icebreaker.

11:00- 13:00 Microbial electrochemical biofilm analysis - MinION sequencing, version 10. Library preparation.

13:00 – 14:00 Lunch

14:00- 16:00 Electrochemical analysis – Manual polarisations

16:00 – 17:00 Microbial electrochemical biofilm analysis- MinION sequencing. PCR product clean-up.

18:00 – 20:00 Outreach session with Cap-a-pie and dinner.

**Friday 13th December 2024**

9:00 – 10:30 Pulling library loading and star-up the sequencing. Discussion of the result obtained. Demonstration of Sequencing, all in one group.

11:00 –12:30 Electrochemical Analyses - cyclic voltammetry and polarisation using the potentiostat.

12:30 – 13:00 Closing workshop / Feedback / Group Photo

13:00 – 14:00 Lunch