

## Electrochemistry Intern, Summer 2025

New Haven, CT | Full Time | On-Site

### About Oxylus Energy

Oxylus Energy is a public benefit corporation founded in 2023 with a mission to displace fossil fuels through the direct conversion of CO<sub>2</sub> into carbon-neutral fuels and chemicals. Oxylus is developing cutting edge CO<sub>2</sub> electrolysis technology for the direct production of green methanol, reducing the energy requirement and enabling both onsite fuel production and carbon conversion. This solution has the potential to provide an economic pathway to decarbonization for the hard-to-abate sectors of aviation, shipping, and petrochemicals which are responsible for ~11% of global GHG emissions.

Oxylus Energy is located in New Haven, CT and is supported by top climate technology funders including Toyota Ventures, Azolla Ventures, Earth Foundry, and Connecticut Innovations. Joining us now is an opportunity to play a fundamental role in the development of our team and technology so that we can bring our transformative solution to market.

### Job Brief

The *Electrochemistry Intern* will work with the Oxylus research and development team and contribute to testing and scale-up of membrane electrode assemblies (MEAs) for Oxylus Energy's CO<sub>2</sub> electrolyzers. Primary responsibilities include testing the performance of MEAs under a range of conditions and investigating electrode and membrane properties. Throughout the internship term, the intern will receive in-depth training and mentorship from the Oxylus R&D team. This role directly reports to the CTO and/or a senior scientist.

This internship is a full-time, paid position for a duration of 10 weeks in Summer 2025. Exact start dates are flexible.

### What You Will Do

- Design and prepare catalyst inks and fabricate electrodes using state-of-the-art techniques.
- Activate ion-exchange membranes and fabricate membrane electrode assemblies.
- Investigate electrode additives and their effect on electrochemical performance.
- Assemble MEAs and perform durability testing.
- Analyze data and document results carefully.
- Design experimental plans with senior scientists.
- Collaborate with industry, government, and academic partner organizations on joint projects, with possible visits to nearby facilities and plants.
- Prepare presentations for diverse stakeholders.

### Who You Are

- Currently enrolled student pursuing a Bachelor's or Master's degree in chemistry, materials science, or a related field.
- Previous laboratory research experience. An electrochemistry background is a plus.
- Detail-oriented with strong organization skills.
- Excellent communication skills, both oral and written as well as technical writing.
- Highly motivated and milestone-driven.
- Strong commitment and adherence to laboratory safety.
- Reliable, action-oriented, hard-working, and a team player.

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