

Polymer Chemist

New Haven, CT | Full Time | On-Site

About Oxylus Energy

Oxylus Energy is a novel climatetech company focused on providing real solutions that can scale. Oxylus Energy is a public benefit corporation founded in 2023 with a mission to displace fossil fuels through the direct conversion of CO₂ into carbon-neutral fuels and chemicals. Oxylus is developing cutting edge CO₂ 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 **Polymer Chemist** will be a key member of the Oxylus research and development team and will oversee the development of ionomers and membranes for Oxylus Energy's CO_x electrolyzers. This will include synthesizing and testing in-house and commercial materials, creating SOPs for catalyst ink and membrane handling, and working collaboratively with other team members on membrane electrode assembly optimization and scale-up. The ideal candidate is a chemist, materials scientist, or chemical engineer with a detailed understanding of polymer electrolytes with hands-on experience in fuel cells or electrolyzers. Previous experience with CO_x electrolyzers is a plus.

What You Will Do

- Lead the development of polymer electrolytes for Oxylus Energy's electrolyzers.
- Design and perform experimental studies to understand degradation mechanisms of polymer electrolytes.
- Perform polymer/monomer synthesis.
- Characterize physical and chemical properties of materials.
- Analyze data and document results carefully.

Additional responsibilities might include:

- Manage junior team members.
- Collaborate with industry and academic partner organizations on joint projects.
- Prepare presentation for diverse stakeholders.



Who You Are

- B.S. in chemistry, chemical engineering, materials science (or related field).
- 3+ years relevant industry experience with polymer electrolytes in applications such as PEM and AEM electrolyzers or fuel cells.
- Hands on experience with electrochemical devices.
- Strong background in chemistry and material science with experience using chemical and physical characterization tools.
- Detail oriented with strong organization skills.
- Excellent communication skills, both oral and written as well as technical writing.
- Self-motived and milestones driven.
- Reliable, action-oriented, hard-working, and a team player.

Salary

- **\$80-\$120k**, commensurate on experience, education, and skills.

Oxylus Energy Benefits

- Medical, dental, and vision coverage
- Paid sick days and vacation
- Competitive salary and equity compensation
- Diverse and inclusive work environment

We are convinced that the distinct contributions of each person fuel our success. To ensure our products and culture remain inclusive of all viewpoints and experiences, we uphold a policy of non-discrimination regarding race, religion, national origin, gender identity or expression, sexual orientation, age, as well as marital, veteran, or disability status.