XL Batteries – Chemist II

APPLICATIONS SUBMITTED THROUGH INDEED/LINKEDIN WILL NOT BE CONSIDERED

To Apply by Email:

Visit https://xl-batteries.com/contact/ and send us an email with the subject line "[YOUR NAME] - Application for XL Batteries XL202203: Chemist II" replacing the bracketed text with your name. Please include a CV and cover letter, each attached as a separate PDF. Thank you.

About Us

XL Batteries is a Massachusetts-based scientific research company developing next generation battery technology for grid-level energy storage. We are a growing, highly collaborative team currently conducting chemical synthesis and battery engineering research and development in our laboratory in Marlborough, MA. Our mission is to enable large scale energy storage for use with existing infrastructure. Our ultimate goal is to unlock the potential of intermittent renewable generation such as solar and wind.

XL Batteries is an equal opportunity employer. We offer competitive salary and benefits, including healthcare, dental, vision, and a retirement plan.

About Our Location

Marlborough, MA is a beautiful small city in central Massachusetts, surrounded by quaint Massachusetts towns and within day-trip distance of the Berkshires. For those who prefer a more urban lifestyle, we are located directly off I-495 within easy commuting distance of Boston and Cambridge (30-40 minutes), Worcester (25 minutes), Nashua, NH (45 minutes) and Providence, RI (50 minutes).

About You

We are seeking talented individuals with a proven track record who are looking to solve complex, challenging research problems. We are looking for teammates who are collaborative and creative.

Each team member has an opportunity to truly impact XL Batteries, and with that mentality we need team members that are excited to work in a fast paced startup

environment that is ever changing, where no job is too big or too small, and where we strive to constantly question everything.

Role Description

XL Batteries is developing a new generation of flow battery for grid-scale energy storage. We are currently seeking creative, forward-thinking individuals to help with the synthesis of electrolyte molecules. Initially, team members in this role will work under the supervision of the Chemistry leadership team to bring our current electrolyte molecules to the kilogram scale. Team members in this role will further work with the Chemistry team leaders to identify new chemical targets, plan a synthetic route, perform safe, reproducible, efficient syntheses up to the kilogram scale, develop SOPs, control and analyze the quality of products, troubleshoot, and optimize. We are especially interested in candidates who are excited to help build a culture of discovery, curiosity, and ingenuity. Some of the major tasks at hand include: (i) designing and synthesizing new electrolyte molecules (ii) Optimizing syntheses to increase yields and purity (iii) providing feedback and new ideas that encourage safety, economy, and simplicity in synthetic procedures (iv) interfacing with senior scientists and the engineering team.

Responsibilities

- Work safely in a chemistry laboratory
- Air-free syntheses in a chemical safety hood
- Report to and interface with Chemistry team leadership.
- Identify and characterize reaction products using common quantitative techniques including NMR, HPLC, UV/Vis, IR, Etc.
- Obtain high purity product suitable for batteries.
- Optimize reaction and purification conditions up to the kilogram scale and create reproducible, reliable SOPs.
- Prepare high quality written documentations (notebooks, SOPs, and analytical procedures).
- Maintain excellent laboratory records and write reports and research summaries as required.
- Maintain a clean and safe laboratory work area.
- Think critically about how to improve production and maximize safety.
- Manage waste streams and dispose of hazardous waste appropriately.

Requirements

- Ph.D. in organic synthesis, or a Master’s degree with 2 years industrial experience.
- Air-free synthesis techniques.
- Multi-gram or Kilogram-scale synthesis experience is a plus.
- Experience proposing and developing synthetic routes with supporting literature.
- Familiarity with Sci-finder or reaxys.

- Experience operating and maintaining kilogram scale synthesis equipment a plus.
- Hands on experience with common purification and analytical techniques.
- Strong written and oral communication skills required.
- Highly motivated and self-driven individual with the ability to work independently and multi-task.
- Comfortable lifting 50 lbs.
- Must have legal authorization to work in the United States.
- This is a full-time in-person position.