



NTH CYCLE

Inorganic Chemist/Metallurgist

Please send your resume to careers@nthcycle.com or contact Pat Perillo in HR directly at perillo@nthcycle.com.

Who we are.

Demand for critical minerals to power the energy transition is growing exponentially. Yet, we know mining deeper and broader, and building landfills higher and wider, works against our fight to save the planet. At Nth Cycle, we see the path forward. We believe all the critical minerals needed for the energy transition are already in circulation today. We just didn't have a clean, profitable way of retrieving them, until now.

Nth Cycle is a metal processing technology company. Our electro-extraction technology helps battery recyclers and miners capture more critical minerals—for use in lithium ion battery manufacturing, among other things—while dramatically reducing costs and emissions. We are the heart of metals processing; we are the crucial step that profitably separates critical minerals from other elements, transforming them into production-grade feedstocks for the energy transition.

Our Culture.

We're a dynamic team looking for a new team member who's also passionate about addressing climate change and advancing the clean energy industry. Consistent with our commitment to diversity & inclusion, we value colleagues with the ability to work on diverse teams and with a diverse range of people.

Position description.

Nth Cycle is looking for a Metallurgist to join and lead the technical roll out of our innovative electro-extraction solution in the mining and metals industry. As Nth Cycle continues its rapid development, the company is looking for a high energy, self-starter to support the technological delivery of Nth Cycle's best in class solution. This role requires a confident and innovative professional, a good listener, aggressive in discovering novel solutions to classical metallurgic problems, focused on meeting the customer's technical specifications, and able to work well on a team within a rapidly growing business. Proven success navigating complex flowsheets and identifying potential plug-and-play opportunities for the Nth Cycle technology will be the key to consulting with our potential partners and generating proposals to meet their unique metals and material upgrade needs. We are looking for a sharp, hungry individual who is committed to truly redefining the way we refine critical minerals for the energy transition.

This role will report to the VP of Engineering. They will work with the research, development, and engineering teams to deliver metallurgic solutions in areas such as: selective leaching procedures for new metal feedstocks, selective precipitation processes for complex metal solutions, and development of test parameters to validate new materials, and characterize metal products. This role will mostly be hands-on laboratory efforts, but success will likely require interfacing virtually and in-person with customers and partners.



Key responsibilities and accountabilities.

- Creating and maintaining an active feedstock database to compile methods and build knowledge base
- Develop procedures to characterize incoming feedstocks and determine pre-processing needs
- Develop and execute procedures to digest new feedstocks for specific application metrics
- Collaborate with the technical team to scale pre-processing methods for improved performance
- Develop advanced hydrometallurgic methods that utilize electroextraction as a novel replacement for classical hydrometallurgical techniques such as acid digestion and chemical precipitation
- Communicate technical results and challenges across the organization to advance product development
- Preparing and presenting metallurgic flowsheets
- Identifying potential electroextraction plug-and-play sites in pre-existing metallurgic flow sheets
- Characterization of metal and metal hydroxide products

Qualifications and experience.

Qualified candidates will possess a strong combination of the following:

- 3-5 years professional or academic experience in the metallurgy, mining engineering, geological engineering, or a related field with an experimental focus.
- Relevant electrochemistry related hands on experient
- Demonstrated aptitude in aqueous & solid metal analyses such as AA, ICP-MS, UV-vis, XRD, XRF, XPS, EDS, SEM, etc.
- Extensive experience with Microsoft Excel and other spreadsheet and modeling tools such as Matlab, Python, Comsol, etc. for quantitative data analysis and geochemical simulations.
- Strong written and oral communication skills.
- Thorough technical understanding of metal dissolution-precipitation equilibrium, kinetics, and mechanisms to allow for rapid theoretical qualitative feedstock analysis and in-depth quantitative analysis.

Closing Statement.

Consistent with our commitment to diversity & inclusion, we value people with the ability to work on diverse teams and with a diverse range of people. We especially encourage members of traditionally underrepresented communities to apply, including women, people of color, LGBTQ people, veterans, and people with disabilities.

Come help us build a billion dollar company and redefine the critical minerals supply chain.