

Hydrometallurgy Engineer - Chemical

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 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 refining technology company. Our Electro-Extraction technology helps recyclers and mines 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.

You won't find another team like ours. We believe in open, honest communication, and enjoying our work while changing the world. We're mission-oriented and think big—we're focused on reducing gigatons of CO2 emissions from the atmosphere by 2050, and we value the perspectives and opinions of our colleagues while pushing each other to excel.

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.

We are looking for a Hydrometallurgy Engineer to work with our innovative, fast-paced multidisciplinary team. They will have responsibility as the liaison between R&D and operations with a focus on chemical process development, successful scale-up of new product execution, and sustaining technology-manufacturing readiness. This person must be flexible, proactive, and professional with experience in scale-up and process development applications such as chemical refining, hydrometallurgy, minerals, chemical processing.

KEY RESPONSIBILITIES AND ACCOUNTABILITIES.

This individual will:

- Lead the development and scale-up of lab processes on pilot and production scales, with a focus on improving metal recovery and reducing cost and environmental impact.
 - Identify potential process risks, propose, and evaluate solutions to mitigate the risks.
 - Evaluate process capability, improve process control, and deliver samples to customers.
 - Conduct detailed process simulations and modeling to predict process behaviors under various scenarios.
 - Develop, prepare, and provide detailed production and process guidelines, including standard operating procedures (SOPs), process flow details, safety, and quality standards.
 - Improve and troubleshoot products, equipment, and process issues during production.
 - Provide technical leadership and mentorship to junior scientists, engineers, and technical staff.

- Guide the R&D team and any external partners in the design and execution of experiments to develop required base data for chemical process design
 - Drive chemical process design and development from the concept stages to scaled production, ensuring quality is maintained throughout the lifecycle of the project
 - Develop and model potential process designs for scale-up and cost estimating based on lab scale chemical processes
 - Identify potential process risks, propose, and evaluate solutions to mitigate the risks
 - Evaluate process capability and improve process control

QUALIFICATIONS AND EXPERIENCE.

The qualified candidates will possess a strong combination of the following:

- Bachelor's degree in chemical engineering or related discipline required.
 - 10 years of experience in a Chemical Process and/Development Engineering required
 - Hands on experience scaling processes from R&D to an operating environment
 - Expertise in process modeling, development, control, and scale-up
 - Coordinate and execute bench-top, pilot, manufacturing scale-up and verification batches with speed and robustness.
 - Proficient in using software for process analysis and modeling
 - Sound understanding of chemical processes and their scale-up
 - Strong leadership and interpersonal skills for implementation of cross-functional process improvements



- Strong background in analytical and quantitative skills for problem solving of large/complex problems and proven ability in decision making.

WHERE WE ARE AND WHAT WE OFFER:

- Greater Boston Area
- Medical, Dental, and Vision benefits where Nth Cycle pays 100% of the employee premium.
- Short and long-term disability coverage
- Basic life insurance and AD&D
- 401k
- Paid time off, company holidays, and a Holiday Break at the end of the year

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.

We know the right candidate might not check every box in this job description. You could also have important skills we haven't thought of. If you think you're a great candidate for this role, apply and tell us why. To apply, send us a resume and a few sentences about why you are interested in this position and what you bring to the table. We're looking forward to hearing from you.

Send your resume to careers@nthcycle.com

- Or -

Contact: Pat Perillo, Human Resources, Nth Cycle

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