

Copper Core Tech Director

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 processing technology company. Our electro-extraction technology helps 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

You won't find another team like ours. We believe in open, honest communication, and enjoying our work while changing the world. 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.

If this is you, keep reading.

JOB OVERVIEW

The Copper Core Tech Director will serve as the technical authority for the optimization of electrolytic cells dedicated to copper electroextraction. This role involves providing knowledge and knowhow in terms of maximizing production rate, selective copper recovery and ensuring uniform deposit quality. The Copper Core Tech Director will bridge electrochemistry and engineering design.

KEY RESPONSIBILITIES

Process & system optimization

Lead process and system optimization for copper electrodeposition, improving efficiency, lifetime, and energy use.

Product delivery

To apply, contact careers@nthcycle.com

15 Blue Sky Drive
Burlington, MA. 01803
nthcycle.com

Ensure copper cell functionalities (e.g., copper deposition and removal, purity, granulometry and form comply with customer specifications) are optimal.

Scale-up

Drive the transition of the copper cell designs from prototype and commercial-scale operations, ensuring robust and manufacturable designs.

Testing and validation

Develop and execute experimental test plans to validate cell performance, analyze voltage-current characteristics, and optimize copper deposit quality.

Technical Leadership

Lead cross-functional engineering teams, provide technical guidance to senior staff, and manage relationships with external suppliers for cell components.

Electrode optimization

Collaborate with materials engineers to select and design high-performance cathodes (e.g., porous stainless steel geometries) and anodes (e.g., lead alloys or dimensionally stable anodes) to maximize production rate current efficiency.

Documentation

Manage engineering drawings, detailed bills of materials (BOM), and design documentation adhering to industry standards.

REQUIRED QUALIFICATIONS

Education

Bachelor's or Master's degree in Chemical Engineering, Mechanical Engineering, Electrochemical Engineering, or Materials Science.

Experience

15+ years of experience in electrochemistry, specifically within electrowinning and metallurgy.

Minimum 5 years people management experience required.

Domain Knowledge

Strong understanding of copper electrochemistry, industrial electrodeposition processes, and transport phenomena.

KEY COMPETENCIES

- Highly motivated and hands-on professional with a focus on sustainable technology.
- Strong analytical skills to root-cause failure modes (dendrite formation, uneven coating).
- Ability to work in a fast-paced environment and deliver results on strict timelines.

SALARY RANGE

\$180,000 - \$200,000

LOCATION

Burlington, Massachusetts

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