

January 2020

Only three rechargeable battery chemistries have been commoditized in the past two centuries. Natron Energy has delivered the fourth. Natron's products enable solutions for next-gen power services in multi-\$Billion markets including data centers, EV fast charging, materials handling, and renewables support. Natron's batteries offer breakthrough performance in three metrics critical to these markets: ultra high power capability including full discharge and recharge in minutes, an unmatched service life of tens of thousands of deep discharge cycles, and unique safety and fault tolerance including no thermal runaways. Natron's batteries are based on a new cell chemistry that includes Prussian blue electrodes and a sodium-ion electrolyte. Natron manufactures its products in existing lithium-ion plants. Natron launched its first product for data center customers in Q4 2019.

Natron seeks a Senior Process Chemist/Chemical Engineer with 5+ years of industrial experience to lead and execute projects related to the synthesis of novel battery materials. The person in this position will join the company's Technology team, which is responsible for developing the company's core cell technology. As part of this team, he or she will collaborate with the company's Manufacturing team on all facets of technology handoff for successful scale up and commercialization of the company's materials and cell. Qualified candidates have significant prior experience developing synthesis concepts for inorganic and/or organometallic compounds from proof-of concept, through feasibility stages, and to ultimate commercialization and scale up. This role requires both extensive hands-on lab work, and the ability to apply an understanding of chemistry and chemical engineering fundamentals including kinetics of nucleation and growth in crystallization/precipitation reactions, filtration/drying unit operations, heat/mass transport phenomena, and flow simulations. Strong candidates are self-motivated, team oriented, and do what it takes to get the job done. He or she must hold a Master of Science degree in chemistry, chemical engineering, or related field.

Responsibilities:

- Develop, validate, and document benchtop and Kilo-lab scale syntheses of novel Prussian Blue materials.
- Develop and execute experimental campaigns to establish fundamental relationships between reaction/process parameters and material properties.
- Conduct DOEs, implement statistical analysis methods, measurement system analysis, and other quality tools.
- Compose and maintain process documentation including control plans, SOPs, PFMEAs, etc.
- Support process and documentation transfer to the company's manufacturing team and its contract manufacturing partners.

Experience and Skills:

- Required: Master of Science degree in chemistry, chemical engineering, or related fields.
- Required: 5+ years of industrial experience as a process chemist, working on proof-of-concept R&D-scale, Kilo lab-scale, and pilot-scale synthesis of novel, high performance, materials.
- Ability to apply expert understanding of the kinetics of reaction-induced crystallization/precipitation reaction processes nucleation, growth, agglomeration, and disruption.
- Required: Significant hands on experience in synthesis of solution-based nanomaterials.
- Required: Significant experience synthesizing air/moisture-sensitive compounds using Schlenk lines or equivalent equipment.
- Prior experience with specifying, commissioning, and operating lab- and Kilo lab-scale reactor systems, dynamic/static mixers, (agitated) Nutsch filters, centrifuges, tumble/paddle dryers, pumps, etc.
- Knowledge and ability to apply scale-up design rules, e.g. reactor vessel design, etc.

- Experience with flow visualization using Visimix or similar mixing simulation software is preferred.
- Experience in multitude of characterization methods such as SEM/EDX, PSD, FTIR, TEM, etc.
- Ability to plan, execute, and analyze complex DOEs (full/partial factorial, Taguchi).
- Required: ability to apply SPC tools (hypothesis testing/ANOVA, MSA, process capability analysis).
- Ability to perform statistical analysis using software such as Minitab or JMP is preferred.

Logistics:

- This is a full time, permanent position.
- Employees must work on site in Santa Clara.
- Compensation competitive with other Bay Area senior process chemist/senior chemical engineer roles

Contact Information:

- jobs@natron.energy
- sabrina@pacificsearchfirm.com