

Senior Chemical Process Engineer

Zinc8 Energy Solutions is developing a range of energy storage products based on a novel zinc-air flow battery technology. An expanding market for these products exists in utility, commercial, industrial, microgrid and similar applications. With powerful backing and a committed engineering nucleus, Zinc8 is expanding its product development team to capitalize on this rare opportunity.

Duties & Responsibilities:

- Lead the scaling of our zinc storage system for the mass production of our configurable energy storage system
- Lead the development of the liquid-solid distribution system which is scalable and configurable
- Lead the development of our electrolyte management system that ensures constituent concentrations are monitored and adjusted continuously to ensure reliable operating conditions
- Develop or implement existing sensing tools to improve the management of our slurry and electrolyte
- Develop and implement a method of blending large volumes of electrolyte
- Define and provide functional and design requirements of system to mechanical engineers
- Define, plan and execute both full- and small-scale experiments as needed
- Work with mechanical designers/engineers to improve performance and reliability of the system
- Develop a modeling tool that can be used to optimize performance and cost of our system
- Collaborate with engineers and business development manager to advance a modular and scalable energy storage system

Minimum Qualifications:

- Bachelor's degree in Chemical Engineering or other relevant fields
- Ten years' related experience
- Excellent technical skills
- Exceptional problem solving and troubleshooting skills
- Experience designing and implementing chemical process plants
- Experience designing and implementing systems that manage multiple interconnected chemical processes
- Experience designing and implementing systems for harsh chemical environments
- Experience with transporting solids in fluids
- Must have a strong understanding of electrochemical behavior
- Experience specifying mixing tanks and mixers for liquid-solid mixing
- Experience with prototype development and testing
- Experience in product development
- Must be fluent in English with excellent communication skills

Desirable Qualifications:

- Experience designing for corrosive environments
- Competence in analyzing data, and developing conclusions and recommendations
- Advanced analytical and creative thinking skills
- Experience with thermodynamics, mass and energy, chemical process and product design, transport phenomena, and electrochemistry
- Experience with CFD or other fluidic modeling tools is a plus
- Experience with containerized systems
- Experience in selecting and managing external suppliers and subcontractors
- Ability to generate 3D models and assemblies and associated engineering drawings using SolidWorks is a plus
- Experience with codes and standards
- Experience designing for 3-phase (liquid, solid, gas) processes
- Experience sizing and implementing heat exchangers for harsh chemical environments
- Proficiency in using analytical/modeling tools for chemical process modeling (Aspen, Matlab etc.)

Compensation:

We offer a competitive salary with generous benefits. We promote an open and inclusive environment in which our colleagues are encouraged to be creative and resourceful.

Location

Vancouver, B.C.

Great location – close to the Canada Line, Marine Drive, SkyTrain station!

Please send your resume and cover letter to: careers@zinc8energy.com