



Position: Process Engineer / Process Chemist

Department: Proposals & Product Development

Summary: The role will be to support the sales and development of ProSep's technologies, specifically our proprietary adsorption media. Example duties include: design of experiments (DoE), data analysis and review, process simulations, data modeling, communicating results, proposal development, drawing development including PFD and P&IDs, and cost estimation. The role will also require clear communication for internal, external, and formal publications. The candidate must demonstrate experience in Lithium and/or Rare Earth Elements recovery/separation.

Process Engineer / Process Development Chemist must be able to scale up chemical processes as well as evaluate processes for efficiency, effectiveness, quality and safety. This includes the use of engineering tools such as AutoCAD, HYSYS, UniSim, Microsoft office products and spread sheets, as well as reviewing and applying engineering standards that are universal (ANSI, PED, ASME, etc.) and customer specific. Process Engineer / Process Development Chemist is also expected to relate to customers with regard to their technical and commercial needs and shall take these into consideration when providing expertise and solutions.

EDUCATION/TRAINING:

- Engineering or Chemistry Degree BS/MS/PhD (Chemical, Mechanical, Industrial)
- Process Simulation Training, i.e., HYSYS, UniSim, AutoCAD, design and draft software
- Unit Operations Experience within an operating facility or pilot plant

EXPERIENCE/QUALIFICATIONS:

- 1-5 years related process industry experience related to lithium and/or Rare Earth Elements
- The critical skill set required is the experience and ability to apply chemistry fundamentals and know-how to pilot and industrial scale chemical manufacturing processes
- Experience in conducting lab and pilot scale experiments, and translation of the results to production scale processes, operation of "kilo-lab" type capabilities and exposure to manufacturing scale processes are preferred.

MAJOR AREAS OF RESPONSIBILITY:

- Develop testing matrix and evaluate data to solve problems and develop technologies
- Develop process systems solutions utilizing ProSep products and technologies, where applicable and cost effective; this would include PFD and P&ID definition, process equipment selection, performance evaluation, and sizing
- Draft reports based on process evaluation and analysis. Create internal records for distribution and knowledge sharing.
- Respond to customers with needs arising from process changes. Analyze, discuss, and recommend solutions.
- Know, apply, and use ProSep proprietary and licensed process simulation programs for main focus areas, including compact mixing and separations, crude treating, produced water treatment, and mass transfer processes
- Discern clients' technical / commercial drivers and respond with appropriate process and economic solutions

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- Take principal responsibility for advanced engineering calculations and utilization of multi-faceted simulation models
- Exhibit aptitude for complex problem-solving skills demonstrated in the development of exceptionally / innovative engineered process solutions
- Perform basic engineering calculations such as heat and mass balance, equipment duty specifications, fluid flow and hydraulics, heat exchange, valve and orifice sizing, etc.
- Understand overall process system and interdependency of various unit operations
- Assume responsibility of proposal process and technical specifications evaluation for inquiry packages to include all variations of process solution options – internals, equipment, skid, and / or systems
- Support sales efforts for active projects from a process solution / application selection perspective, including presentation of technical solutions

KNOWLEDGE, SKILLS, AND ABILITIES:

- Excellent interpersonal, communication, & team-building skills
- Strong organizational skills, written and oral communication skills, self-starter, multitasking skill a must to meet multiple deadlines
- Self-starter, able to seek out opportunities to grow the business and pursue them with minimal direction
- Business, finance, or economics aptitude and / or background a plus
- Ability to effectively present information and respond to inquiries from managers, peers, clients, vendors, etc.
- Interest in developing new applications and technologies
- Mechanical aptitude desirable
- Familiarity with industry standards and norms related to process units