

Job Title:	Chemical Engineer	Job Category:	Research & Development
Department/Group:	Research & Development	Position Type:	Full-Time & Permanent
Location:	Hyde Park, Boston, MA	Travel Required:	No
Hours:	40 hrs/wk Flexible 7a - 7p	Compensation:	\$65,000 - 85,000/yr
HR Contact:	Jessica Sweeney	Date Posted:	12/1/2020
Will Train Applicant(s):	Some On the job training	Posting Expires:	2/1/2020

Company Description: Small company focused on research, development, design and engineering, and production of processes based on critical fluid technologies. CF Tech has a research laboratory, pilot plant and full machine, welding, fabrication and assembly shop for manufacturing DurOLok pressure vessels and critical fluid processing systems.

Job Description:

CF Technologies, Inc. has an opening for a Research Engineer with a background in Organic (or biochemistry) and Analytical Chemistry, Process Control, and Team Leadership, for research and development projects in clean and green technologies. Responsibilities include design and performance of critical fluid extraction, fractionation, reaction, adsorption, and chromatography experimental studies at bench and pilot scale; analysis of experimental results; and reporting of results internally and to commercial and government clients. CF Tech is involved in a number of research projects including renewable fuels – waste to energy biodiesel; aerogel drying; organic compound identification and selective separation; and natural product oil extraction, separation and fractionation.

Duties & Responsibilities:

Maintain safe operations by adhering to safety procedures and regulations.

Oral and written communication, in English, with co-workers, clients, vendors, and management.

Operate critical fluid extraction, drying, reaction, and chromatography systems at analytical, bench and pilot scale.

Develop and scale-up processes from bench through commercial design.

Analyze samples by Gas Chromatography, UV Vis spectroscopy, and coordinate with outside labs.

Review and prepare experimental protocols, plan sequence of operations, and determine equipment and consumables required.

Timely submission of reports and administrative requests.

Ability to communicate professionally and clearly to coworkers and clients alike, including written and verbal presentation of data.

Manage and closely collaborate with laboratory technician(s) and interns.

Selection, installation & calibration of instrumentation: Pressure, Temperature, Flow & Safety sensors and indicators.

Preferred Experience, Skills, and Qualifications:

- Collaborative team player and leader to guide projects and achieve research objectives.
- Prior Project or Laboratory Team Leadership Experience (i.e. Lab Research Group).
- Prior experience in automated process control and data acquisition programming and implementation and system design for laboratory and commercial processes.
- Industry Experience and/or educational background of Organic Chemistry (fuel, petrochemicals, food, nutraceuticals).
- Experimental experience with one or more of critical fluid processes; high pressure processes; analytical instruments such as GC, HPLC, SFC, UV-Vis – assembling, modifying, and operating equipment.
- Experience and competency with process design including process flow diagrams, piping and instrumentation diagrams, material and energy balances, equipment specification.
- Bachelor's Degree with on the job experience or Masters Degree in Chemical Engineering.
- Hands-on in design, construction and operation, including troubleshooting and improvements to processes.
- Ability to self-motivate and remain focused and alert to execute experimental work, as well as required troubleshooting equipment issues.
- Astute observation and data recording and analysis; with ability to coherently present.

- Ability to communicate results to technical and non-technical audiences through written reports and presentations.
- Ability to help the team with proposal writing, identifying new clients and partners, and project estimating.

Computer Skills: Microsoft Suite including Sharepoint, Excel, Word and Powerpoint; MATLAB or Python, process simulation and thermodynamic, modeling; CAD software; LabView, ChemStation, PLC controllers, etc.