



Senior Process Engineer Sublime Systems September 2021

Background & Overview

Cement is one of the most massively consumed materials in the world. Each kg of cement results in a kg of CO₂ released to the atmosphere, amounting to 8% of annual global CO₂ emissions. Demand for cement is increasing as the world's population grows and urbanizes. Better, greener ways of making cement are needed if we are to curb CO₂ emissions and mitigate global warming.

Sublime Systems is developing new technology to make CO₂-neutral cement using renewable electricity instead of fossil fuels. Sublime was founded by Dr. Leah Ellis, who was named MIT Technology Review's 35 Innovators under 35, and Prof. Yet-Ming Chiang, serial cleantech entrepreneur and professor at MIT's Department of Materials Science. Sublime is backed by leading cleantech investors: The Engine, Prime Impact Fund, and Lowercarbon Capital.

Position Overview

Sublime Systems seeks a creative and dynamic Senior Process Engineer to contribute to the scale-up of our cement manufacturing process. The Senior Process Engineer will progress commercial scale facility design concepts with a focus on process modeling. As a member of Sublime Systems' small but growing team, the right individual will be a key technical resource in the scale up of Sublime's technology. This is an exciting opportunity to combat global climate change by transforming how the world makes cement. This position is located in Somerville, MA.

Responsibilities include:

- Lead the development of Sublime's integrated process model simulation and act as company Subject Matter Expert (SME) on process modeling by continuously validating and improving models as the technology scales
- Create and maintain project specific Mass & Energy Balance models for pilot, demonstration, and commercial scale facilities
- Participate in the analysis and interpretation of lab, pilot and demo scale data, technical literature, and process simulations.
- Collaborate with R&D to frame out lab scale and pilot scale experiments to answer key commercial scale technical/economic questions
- Contribute to the development of Sublime's commercial scale design through vendor research, techno-economic analyses, and process design
- Contribute to the development of fundamental reactor design models leveraging data from pilot plant operations
- Champion safety, especially in pilot plant design and operation
- Foster Sublime Systems' reputation by delivering innovative solutions
- Help to develop a supportive, innovative, and dynamic company culture



Knowledge and Skill Requirements

The role will initially focus on the development of Sublime's commercial scale integrated process simulation in combination with development of fundamental reactor design models. However, we are looking for versatile candidates that can also contribute to the design, installation, troubleshooting, and operation of Sublime's pilot facility in the future. Successful candidates will be results-driven, ambitious, organized, and able to thrive in a fast-paced environment with shifting priorities.

- B.S., M.S., or Ph.D. in chemical engineering or a related field.
- Demonstrated experience developing chemical process models from scratch using simulators such as Aspen Plus, ChemCAD, or PD-PLUS with focus on electrolyte chemistry.
- Strong knowledge of chemical engineering fundamentals, especially acid-base chemistry, solubility and precipitation, chemical kinetics, and continuous reactor design.
- Knowledge of and passion for applying engineering fundamentals to chemical plant design and operation
- Versatile. Capable of developing detail oriented analyses while being happy to roll up sleeves and solve hands on problems.
- Superior presentation and communication skills, both written and verbal.
- Strong interpersonal skills including the ability to listen, distill information, consult, and suggest new approaches.
- Ability to pay close attention to detail, focusing on accuracy and quality, without losing sight of the bigger picture.
- Balance, perspective, and a good sense of humor.

Sublime Systems is proud to be an Equal Opportunity Employer

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, protected veteran status, or any other characteristic protected by law.

Your Right to Work

In compliance with federal law, all persons hired will be required to verify identity and eligibility to work in the United States and to complete the required employment eligibility verification document form upon hire.

Apply online, or by emailing your CV and cover letter to careers@sublime-systems.com.