



Senior Research Scientist – Cement Materials

Sublime Systems

444 Somerville Ave
Somerville, MA, 02143
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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 senior research scientist to contribute to the development of our cement. This contributor will be responsible for conducting research including hands-on lab-scale testing, data analysis, and literature reviews, and will work with the rest of our team to validate and optimize the performance of our cement. As a member of Sublime Systems' small but growing team, the senior research scientist will work closely with the company's leadership and will make a large impact on the technology and business. This is an exciting opportunity to combat global climate change by transforming how the world makes cement.

Responsibilities include:

- Developing new experimental methods and tools to validate and optimize the performance of Sublime's cement
- Performing lab experiments including cement property measurements, analyzing data, and presenting results
- Devising and implementing strategies to improve cement performance
- Prioritizing and organizing the team's research activities
- Championing safety, especially in the development of experimental processes
- Contributing to the development of Sublime's technology through literature reviews and informational interviews with industry experts
- Writing white papers, reports, and patents
- Fostering Sublime Systems' reputation by delivering innovative solutions
- Helping to develop a supportive, innovative, and dynamic company culture



Knowledge and Skill Requirements

This role will focus on cement performance validation and optimization. The position is expected to be hands-on, with a significant amount of time spent engaging in lab testing. The senior research scientist is expected to become an intellectual leader within Sublime's technical team. The ideal candidate will be independent, results-driven, ambitious, organized, and able to thrive in a fast-paced environment.

- B.S. or M.S. in civil engineering, materials science, materials chemistry, or a related field, plus 8 or more years of relevant work experience, OR Ph.D. in civil engineering, materials science, materials chemistry, or a related field, plus 3 or more years of relevant work experience.
- Candidates with industrial research experience in cement, concrete, admixtures, or related materials are preferred.
- Deep knowledge of cement and concrete materials chemistry, including reaction mechanisms and material structure-property-function relationships.
- Ability to select, design, and/or apply tools and techniques to measure cement's key physical and chemical properties.
- Experienced in applying ASTM standard testing methods for cement and concrete materials.
- Knowledge of statistical methods including design of experiments is preferred.
- Experience writing patent applications is preferred.
- 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 by emailing your CV and cover letter to careers@sublime-systems.com.
Referral of successful candidates will be rewarded!**