Carbon

Staff Research Scientist - Pigment Specialist

REDWOOD CITY, CA / ENGINEERING - MATERIALS DEVELOPMENT / FULL-TIME

Working at the intersection of hardware, software and molecular science, we are committed to delivering on the promise of 3D printing, enabling commercial customers to go beyond basic prototyping to 3D manufacturing. Our company is built on the idea that diverse fields of study must come together to solve intractable problems. We have grand ambitions to create technology that will influence industry around the world.

We are seeking a pigment and pigment dispersion expert to further improve performance of Carbon’s liquid resin products. This candidate will be expected to work cross-functionally with suppliers and the materials team on method development, process optimization and commercialization to deliver high quality resins.

This role is located in our Redwood City office.

Responsibilities:

- Be a subject matter expert on pigment, colors and pigment dispersion to guide and accelerate formulation development for 3D printing resins, while interacting with cross functional teams of other chemists, process development engineers as well as external suppliers.

- Studies and understands colloidal particles and their stabilization and interaction with other formulation components both for resin shelf life and the printing process through analytical, experimental and modeling work.

https://jobs.lever.co/carbon/d255f066-3cae-4cfe-94a3-242d33372765
• Design accelerated studies that can well project long term stability of various pigments in different resin formulations, and manage equipment needed for such studies as well as creating SOPs.

• Develop dispersion methods, including process and chemistry to enable stable resins.

• Engage with suppliers to find and/or create appropriate pigment dispersions for 3D printing resins, and work with process engineers to manage the technology transfer to the manufacturing organization to ensure stable, consistent resins.

Requirements:

• Advanced degree in Chemistry, Chemical Engineering, Materials Science, or related field with 5-10 years of industrial experience in which a strong focus on pigment dispersions is present such as creating solvent- or water-borne pigment dispersions, inks or coatings. Outstanding BS/MS level with 10+ years industrial experience will also be considered.

• Understanding of fundamental chemical mechanisms, key areas include – pigment and dye chemistry, polymers in solution, organic and inorganic nanoparticle suspensions, interfacial and surface chemistry, color science, and proficiency in appropriate analytical instruments and the data interpretation.

• Specific knowledge or experience working in polymer (acrylic latex, polyurethane, polyamide, polyester, water-based) material formulation and/or synthesis is desired.

• Experience developing ideas and reducing those ideas into practice. Demonstrated ability to get results.

• Design of Experiment, statistical analysis, and model development skills desired.

• Strong time management and organizational skills.

• Self-motivated team player with strong verbal/written communication, and interpersonal skills.

#LI-MD1

You do not need to match every listed expectation to apply for this position. Here at Carbon, we know that diverse perspectives foster the innovation we need to be successful, and we are committed to building a team that encompasses a variety of backgrounds, experiences, and skills.
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