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## **Associate Development Engineer (Coating)**

Here at Rayleigh Solar Tech Inc. Our mission is to be the lowest-cost provider of clean electrons to drastically increase access to renewable energy and enable the green technology transition. Our company is united by our commitment to change the planet for the better. We push the boundaries of what's possible, our passion for deep tech to solve hard engineering problems, our insatiable curiosity that forces us to ask questions, and our relentless drive for excellence in everything we touch.

### **Summary:**

Are you a novice engineer passionate about renewable energy and eager to shape the future of solar technology? Join our Roll-to-Roll Readiness team as an Associate Development Engineer (Coating), where you'll be at the forefront of advancing scalable fabrication processes for flexible perovskite solar modules. The team oversees key manufacturing processes, such as laser scribing, thin-film deposition, and encapsulation, working to optimize module performance and increase fabrication throughput. In this role, you'll focus on wet deposition coating and interface optimization, utilizing engineering methods to improve workflows in a laboratory environment. Your efforts to enhance the quality and uniformity of large-area solar thin films, while reducing costs and cycle times, will be pivotal in moving our perovskite module technology toward Roll-to-Roll (R2R) manufacturing readiness.

### **Responsibilities:**

- **Project & Functional Areas Ownership:** Primary ownership of specific functions within the process development space, including coating equipment commissioning, maintenance, and training technicians and students. You will also play a key role in larger projects that define the team's success in meeting goals and deliverables.
- **Process Experimentation & Method Optimization:** Execute and analyze coating process experiments in the laboratory. Apply quality analysis and control methodologies on thin films.
- **Learn statistical analysis and engineering techniques** to reduce process cycle times while improving quality and reproducibility.
- **Defect Reduction & Process Improvement:** Identify opportunities to improve solar device efficiency, material selection, and process/equipment design by analyzing critical metrics such as defect density, opto-electronic properties, variations, and failure modes.

- **Data Analysis & Visualization:** Develop and use data reporting and visualization tools to support laboratory experiments and perovskite module fabrication.
- **Cross-Functional Collaboration:** Work closely with multidisciplinary teams to ensure changes in process parameters are implemented and yield satisfactory results.

### **Core Competencies:**

- **Critical Problem-Solving:** Ability to identify the right questions and engage the right people at the right time.
- **Curiosity & Inventiveness:** Strong desire to innovate and drive new solutions to complex challenges.
- **Execution & Follow-Through:** Commitment to delivering results and empowering others to do the same.
- **Structured Approach:** Ability to bring order and clarity to complex tasks through methodical processes, mentorship, and documentation.
- **Teamwork:** Proven ability to work effectively across cross-functional teams, including product design, quality, production, supply chain, and external vendors.

### **Qualifications:**

- 1+ year of relevant work experience in the thin-film wet deposition industry
- Diploma or associate's degree in an engineering discipline or similar technical field
  - Bachelor's degree with relevant work experience, or
  - Master's degree with thesis work focused on thin-film wet deposition.
- Exceptional hand-eye coordination and the ability to use technical equipment with precision and accuracy.
- Hands-on experience executing wet coating experiments (e.g., blade, slot die, spin, spray, reverse gravure) in a laboratory setting.
- Familiarity with glovebox environments and preparing precursor solutions with high accuracy.

- Knowledge of thin-film solar literature and patents, including emerging perovskite chemistry and fabrication techniques.
- Experience with film characterization techniques (e.g., PL, XRD, SEM, AFM, XPS, confocal microscopy).
- Strong analytical skills to interpret data and derive meaningful conclusions.
- Understanding and application of statistical process control techniques such as Six Sigma.

### **Diversity & Inclusion**

At Rayleigh, we know that diversity makes a strong team. We encourage all qualified applicants to apply for this position and we will never discriminate against race, ethnicity, gender identity, gender expression, sexual orientation, disability, religion, marital status or family status. Instead, we work to celebrate the things that make us unique and create an inclusive environment for all employees.

Don't meet all the requirements outlined above but still find yourself excited about this position and Rayleigh's mission? If you believe that you have the skills and experience to excel in this role, we would love to see your application!

### **To apply**

Submit your resume and cover letter in one PDF file to [careers@rayleighsolartech.com](mailto:careers@rayleighsolartech.com). We are unable to accept applications in any other document format.