

Optical Coating Engineer

About SunDensity

SunDensity is an award-winning, fast growth, photonic smart coating company located in Rochester, NY—the world capital for optics research and innovation. Our first coating product, initially developed at MIT, has the potential to radically increase the energy output of solar panels across the globe, increasing energy access and helping to mitigate the effects of climate change.

We've recently received significant venture funding and funding from the state of New York to create our photonic smart coating production line and scale-up the operations for manufacturing. We're looking to hire a full-time optical coating engineer to support commercialization and scale up activity.

We are a small team of passionate, sharp, and diverse individuals. We value team members that are passionate, team-oriented, diligent, and accepting of other people's differing points of view.

What you will do and be responsible for:

Our optical coating engineer will work directly with our technical staff, supporting labs and partners to help define high-performing optical stacks, scale up pilot production and support full-scale manufacturing. You will assist in developing standards and processes through creation of detailed process and formulation documentation. Expect to perform detailed lab and pilot system characterization, assist in trouble shooting equipment and materials problems, and help establish maintenance protocols.

The right candidate will have experience working with magnetron sputtering, E-beam and thermal evaporation to create, analyze and measure optical coatings with multi-layered optical stacks. You could also have experience spin-coating nano-particles, masking for lithographic nano-cavities, laser ablation, FIB or thermal annealing for creating nano-structures. Experience in various optical metrology equipment, processes and experimental design is a plus.

What you've done to get here:

- You have a minimum of 5 to 7 years with 2+ years of experience working directly with optical coatings, vacuum deposition processes and equipment for optical applications, vacuum chamber operations, and optical coating design
- You've spent significant time doing designed experimentation and analysis in thin film coatings
- You've worked in a class 100000 or better clean-room with personal protective suits
- You have experience with magnetron sputtering, E-beam and thermal evaporation equipment to create optical coatings with multi-layered stacks of dielectrics along with thin metal layers
- You've done spin-coating for nano-particles, masking for lithographic nano-cavities or laser ablation and thermal annealing or creating nano-structures

- You can use optical metrology to measure thickness, transmission, reflectance on spectrophotometer, taking SEM and TEM micrographs
- If you've worked with thin film coating design (e.g. Optilayer) software, that's a bonus
- You are hands on, self-motivated and quickly learn and apply new information or skills
- You're ready to work as part of a team as our company grows
- You can read, interpret and analyze technical data
- You can prepare detailed work plans and meet deadlines
- You're able to use, maintain and test performance of relevant lab and manufacturing equipment
- You have good computer competency and are proficient with design software for development, process improvement and problem diagnosis
- If you have program management capabilities, that's a plus
- You have at least a BS or MS degree in optics, photonics or a related field

Where we are and what we offer:

- This full time position can start immediately
- This is not a remote role, you will work out of our Rochester, NY facility
- Competitive, negotiable salary and medical, vacation, sick leave benefits

Consistent with our commitment to diversity & inclusion, we value people with the ability to work on diverse teams and with a diverse range of people. We especially encourage members of traditionally underrepresented communities to apply, including women, people of color, LGBTQ people, veterans, and people with disabilities.

We know the right candidate might not check every box in this job description. You could also have important skills we haven't thought of. If you think you're a great candidate for this role, apply and tell us why. To apply, send a resume and a cover letter about why you are interested in this position and what you bring to the table. We're looking forward to hearing from you.

Please send your resumes and cover letter to Greg Gresock at gregory@sundensity.net

Additional Work Activities

- Physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.
 - While performing the duties of this job, the employee routinely is required to sit; walk; talk; hear; use hands to keyboard, finger, handle, and feel; stoop, kneel, crouch, twist, reach, and stretch
 - The employee is required to move around labs and offices and may occasionally lift and/or move up to 20 pounds
 - Ability to work in a clean-room environment with protective suit
 - The employee must successfully pass the safety test required by the clean room lab or facilities at University campuses
- Specific vision abilities required by this job include close vision, color vision, peripheral vision, depth perception, and ability to adjust focus
- The work environments generally are moderate in temperature and noise level
- Will require some travel dependent on company needs to work with labs at universities, suppliers and partners