Position: Technical Specialist, Research & Development
Job Status: Regular Full Time
Department: R&D
Location: Thurso, QC, Canada (Ottawa-Gatineau Region)
Reports to: Manager, Production/Research & Development

The Position:

The Technical Specialist will be responsible for development and implementation of nano-optic and micro-optic manufacturing techniques. This may include step-and-repeat nano-imprint lithography (recombination), demetalization, roll-to-roll UV casting, electroforming, along with associated material selection, characterization and durability testing. The position is heavily hands-on in both laboratory and manufacturing settings and provides a unique opportunity to work with cutting-edge nano-optical devices at both lab and industrial scales. The Technical Specialist will have the opportunity to contribute to the company's research and development by working with our scientists and production specialists to develop and integrate new processes and devices for a wide range of customers and industrial applications.

Key Responsibilities:

- Development - Lead technical development of step-and-repeat nano-imprint lithography (recombination), demetalization, roll-to-roll UV casting, electroforming, along with associated material selection, characterization and durability testing. Assist management in understanding timelines, dependencies and constraints.
- Communication - Maintaining and updating documentation such as standard operating procedures (SOPs). Delivering regularly scheduled reports on time and at a high-quality standard. Communicating processes to R&D and production staff.
- Production - Assist in meeting the production needs of the site.
- Organization - Ensure all materials are filed following agreed conventions and are easily accessible.

Qualifications and Experience:

- Education - B.Sc./B. Eng. or equivalent in physics, chemistry, electrical, mechanical or materials engineering.
- Experience - 5+ years' experience in, or related to, at least one of the following fields: thin-film optics, printed electronics, hologram manufacturing, display manufacturing. Ideally the candidate will have experience at both laboratory and industrial scales for building micro- or nano-scale optical devices.
- Technical - Preference given to experience in step-and-repeat nano-imprint lithography (recombination), demetalization, roll-to-roll UV casting, electroforming. Material and micro characterization techniques such as OM, SEM, AFM, and profilometry. Substrate durability testing such as environmental resistance, solvent/chemical resistance and mechanical resistance. Familiarity with Cleanroom protocols will be considered a strong asset.

- Characteristics - Motivated, self-driven professional. Ability to prioritize work and meet deadlines while working on multiple tasks – often under pressure with shifting priorities. Enjoys working with a multi-disciplinary team.

About us

Where ideas and innovation meet.

Nanotech Security Corp. is a leading innovator of nano-optic image technologies used in anti-counterfeiting applications. With billions of security features in circulation, Nanotech's products include secure and memorable security labels, stripes, patches, and colour-shifting films for currency authentication and brand protection.

KolourOptik is a patented technology that is exclusive to the government and banknote market and combines sub-wavelength nanostructures and microstructures to create modern overt security features with a unique and customizable visual effect. KolourOptik pure plasmonic colour pixels produce full colour, 3D depth, and movement used in security stripes and threads that are nearly impossible to replicate. At less than 5 microns thick, KolourOptik products seamlessly integrate into banknotes and other secure government documents.

LiveOptik is a patented technology that utilizes innovative nano-optics one tenth the size of traditional holographic structures to create next generation overt security features customized to our customers' unique requirements. LiveOptik delivers multi-colour, 3D depth, movement, and image switches for secure brand protection stripes, threads, and labels that are nearly impossible to replicate.

Nanotech is a public company, listed on the TSX Venture Exchange. Nanotech strives to create a corporate culture that values input and encourages individuals to express themselves in a team environment.

To Apply

Applications will be accepted until the position is filled. Please email your resume to careers@nanosecurity.ca, include a cover letter, and use the position title in the subject line of your email. Only candidates considered for an interview will be contacted. Thank you for your interest in this position, we look forward to hearing from you!

***Note**: We will **not** be accepting candidates from **recruitment agencies** at this time. Only Candidates who are eligible to accept employment in Canada without sponsorship will be considered.*