



Position: Process Technologist / Engineer
Job Status: Regular Full Time
Department: R&D
Location: Burnaby, BC, Canada
Reports to: Manager, Research & Development

The Position:

Reporting to the Manager, Research & Development, the Process Technologist / Engineer will be responsible for executing nano and micro-fabrication process steps for developing nano-optical security devices. The position is heavily hands-on and requires the ability to attentively follow lab cleanroom standard operating procedures. The Technologist or Engineer title will be provided based on experience of the candidate. The position provides the opportunity to contribute to the R&D and Product Development teams by fabricating optical devices, assisting in developing new fabrication procedures and optimizing the previously developed process steps. The position involves detailed execution of micro and nano-fabrication steps ranging from wet-chemistry to nanoimprinting.

Key Responsibilities:

Wet chemistry – Nickel electroforming, BOE cleaning, general wet bench work.

Physical vapour deposition – Sputtering, E-beam and Thermal evaporation of metals and dielectric materials.

Nano-imprint lithography – Bench top UV casting and NIL tool operations.

Cleanroom operations - Learning and executing fabrication processes operating in Lab and Clean Room environs.

Device and material analysis - Characterizing optical nano-structures and materials in and out of a clean room using optical microscope and profilometer. Opportunity for AFM and SEM training available to high performers.

Maintenance - Perform scheduled and unscheduled maintenance on assigned laboratory tools.

Reporting - Maintaining and writing standard operating procedures (SOPs). Delivering biweekly or monthly reports on project progress.

Organization - Ensure all materials are filed following agreed conventions and are easily accessible.

Qualifications and Experience:

Education – B.Sc. or B.Eng in Chemical, Mechanical or Materials Engineering or equivalent.

Experience – 1-3 years of related experience academic or industry laboratory experience. Experience and qualification in 4DLabs Cleanroom considered an asset.

Technical – Wet bench and chemical processing, thin-film deposition, characterization (microscopy, profilometry, SEM, AFM).

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



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.*