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Position: Staff Scientist
Job Status: Regular Full Time
Department: Optic Development Team
Location: Burnaby, BC, Canada
Reports to: Chief Technology Officer

The Position:

You will be part of Nanotech's Optic Development team, responsible for regular production of nano-scale devices using the company's cutting edge technology and processes. You will also contribute to the design and realization of innovative new nano and micro-structured devices applied to a wide range of security products.

The position involves versatile, creative thinking, and detailed execution of micro-fabrication procedures along with the design of both simple and complex sub-wavelength structures. The technology extends beyond conventional IC and MEMS-type devices, including polymer and non-standard substrates, yet requires knowledge of the fundamental electro-mechanical modeling, design optimization, layout, test, evaluation and debugging of prototypes, and design for mass production. You are also expected to contribute towards improving elements of the fabrication processes over time.

Key Responsibilities:

- Nanofabrication. Learning and developing micro and nanofabrication processes while operating in a Class 100 Clean Room environment.
- Nanostructure and material analysis. Characterizing optical nanostructures and materials in and outside of the Clean Room. Developing characterization models based on data you or your team has measured and collected.
- Reporting. Maintaining and writing standard operating procedures (SOPs), technical papers and documentation for patents.
- Planning. Track and manage multiple projects to deliver on-time, on-budget and to high quality standards.
- Organizational. Ensure all materials are filed following agreed conventions and are easily accessible.

Qualifications and Experience:

- Masters of PhD in Electrical, Optics or Materials Engineering or equivalent training.
- 3+ years of related experience in the micro-optics industry
- Wet bench and chemical processing
- Inorganic thin-film deposition (thermal, ebeam, sputtering deposition)
- Photoresist and polymer deposition (spin-coating, drop casting)
- Photolithography and E-beam lithography (EBL)

- Anisotropic etching (RIE, plasma)
- Micro/nano analysis (microscopy, profilometry, SEM, EDAX)
- Previous experience designing and fabricating surface plasmonic structures
- Knowledge of silicon-based micro-electro-mechanical-systems (MEMS)
- Nano-electro-mechanical-systems (NEMS) engineering an asset

About us

Where ideas and innovation meet.

Nanotech Security Corp. is a leading innovator of nano-optic image technologies used in anti-counterfeiting applications. Nanotech's KolourOptik® technology was inspired by unique structures found on the wings of the Blue Morpho butterfly. Our nano-optic technology creates easy to authenticate security and branding images through a unique interaction of natural light with a grid of nano-sized indentations. In addition to its nano-optic technology, Nanotech produces optical thin film, a high security material with color shift capabilities. This color shift film has been the standard for document security for over two decades as it is extremely difficult to reproduce or simulate.

Nanotech is poised to undergo significant growth in the coming year. The Company has obtained contracts to supply its leading-edge technology to a number of issuing authorities and other security focused customers worldwide. Nanotech's growth potential offers an exciting opportunity for a creative thinker who conceives original designs and brings them to life.

Nanotech Security Corp. 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. Nanotech is conveniently located next to a Sky Train station. Employees are provided covered parking and access to locked bike storage and gym facilities.

To Apply

Applications will be accepted until the position is filled. Email your application to hr@nanosecurity.ca. Please include a cover letter with your resume 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.