

Position: Senior Scientist
Job Status: Regular Full Time
Department: R&D
Location: Burnaby, British Columbia, Canada
Reports to: Manager, Research & Development

The Position:

The Senior Scientist will be responsible for design of new micro and nano-optical devices, simulation and optimization of existing micro and nano-optical devices. The position involves versatile, creative thinking and detailed execution of modelling nanostructures and metamaterials. Execution of experiments, analysis of results, and technical report writing are all required skill sets. The candidate will work within a research team of scientists to accomplish technical objectives and must be able to set measurable goals and meet them along with mentoring junior team members.

Key Responsibilities:

- ◆ Research and Development – Design micro and nano-optical features using proprietary simulation software and associated studies. Design and execute experimental studies to advance Nanotech’s technology. This will be done both independently and as part of a team.
- ◆ Analysis and Design – Characterizing nano-optical structures and metamaterials in and outside of a clean room. Developing physical models based on theoretical and experimental methods and applying those models to further develop fabrication processes.
- ◆ Technical Writing – Writing, technical papers, reports and patents; Maintaining and writing standard operating procedures (SOPs) where appropriate.
- ◆ Organizational – Ensure all materials are filed following agreed conventions and are easily accessible.
- ◆ Teamwork – Work effectively within a team of scientists and train, mentor and supervise junior employees performing work on specific tasks. Assist sales team with answering customer technical requests.

Qualifications and Experience:

- ◆ Education – A PhD degree in electrical engineering, physics or equivalent.
- ◆ Experience – A minimum of three years progressively responsible scientific or engineering positions. Knowledge of electromagnetic design and simulation for nano-photonic structures using FDTD or Finite Element methods is a requisite. Technical team leadership and/or management experience considered an asset.
- ◆ Technical – Strong working knowledge of micro and nano-optics and image processing.

- ◆ Communication – Strong ability to communicate clearly orally and in writing, with the ability to adapt content and style to various audiences. Excellent interpersonal skills with the ability to foster collaborative working relationships among internal teams and external stakeholders.
- ◆ Characteristics – Positive, dedicated, self-driven, hard-working professional. Ability to prioritize work and meet deadlines while working on multiple tasks – often under pressure with shifting priorities. Ability to work both independently and as a member of a team, under tight deadlines. Have a great sense of humour.
- ◆ Computer – Excellent understanding of MS Office, Matlab and Python programming languages.

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.