

Position: Senior Photonic Designer
Job Status: Regular Full Time
Department: R&D
Location: Burnaby, BC, Canada
Reports to: Director, Research & Development

The Position:

Reporting to the Director, Research & Development, the Sr. Photonic Designer will be responsible for deliverables related to FDTD simulations and optics / photonics modelling for internal R&D and customer-based projects. The position involves versatile, creative thinking and detailed execution of characterizing micro- and nano-optic structures and devices, related analysis and report writing. The candidate will work within a diverse research team of scientists, nanofabrication engineers and technicians to accomplish technical objectives.

Key Responsibilities:

- Analysis and Design – Design and development of new and existing nano-optical structures. Developing physical models based on theoretical and experimental methods and applying those models to further develop fabrication processes.
- Technical Writing – Maintaining and writing standard operating procedures (SOPs), technical papers, reports and patents.
- Project Planning – Track and manage multiple projects to deliver on-time, on-budget and to high quality standards in individual and team settings.
- 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 Ph.D. degree in electrical engineering, physics, or equivalent field.
- Experience – At least five years of optics / photonic modelling using FDTD techniques and ray tracing software packages. Industry and/or postdoctoral experience are necessary for this position.
- Technical – Strong working knowledge of nano-optic device design, optical system design, and EM simulations. Demonstrated portfolio of developing optical simulation packages in Python.
- 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 auditors.
- Computer – Excellent understating of ZEMAX, Lumerical or equivalent software packages required.
- Characteristics – Motivated, self-driven professional. Ability to prioritize work and meet deadlines while working on multiple tasks – often under pressure with shifting priorities.



Bonus Qualifications:

- Experience with micro-fabrication (e.g MEMS).

About us

Where ideas and innovation meet.

Nanotech Security Corp., a subsidiary of Meta Materials Inc., 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.

Meta Materials Inc. "META®" (NASDAQ: MMAT) is a developer of high-performance functional materials and nanocomposites. META delivers previously unachievable performance, across a range of applications, by inventing, designing, developing and manufacturing sustainable, highly functional materials. Our broad electromagnetic technology platforms enable leading global brands to deliver breakthrough products to their customers in consumer electronics, 5G communications, health and wellness, aerospace, automotive, and clean energy. Our nano-optic technology provides anti-counterfeiting security features for government documents and currencies and authentication for brands. Our achievements have been widely recognized, including being named a Lux Research Innovator of the Year in 2021. Learn more at www.metamaterial.com.

META is a fast-growing company with a positive and committed work culture and a phenomenally talented workforce. Our employees are inspired to do exceptional and innovative work, are proud to contribute to the success of the company and are our greatest asset.

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.