CAREER OPPORTUNITY

Nanofabrication Engineer - Silicon Photonics

Kgs. Lyngby, Denmark | Full-time | On-site

Do you enjoy solving nano-fabrication challenges and seeing a design become a working device? At Lizard Photonics, you will have the freedom and responsibility to shape how advanced silicon-photonic devices are made - from the mask layout to a reproducible fabrication process.

About Lizard Photonics

We are a Danish deep-tech start-up from the Technical University of Denmark (DTU) developing an ultra-low-power, highly efficient silicon photonics platform. You will join an innovative and ambitious environment where your decisions directly influence device performance and our technology roadmap. With newly secured funding, we are now expanding our core team.

What you will do

- **Develop and improve fabrication processes** for silicon-photonics and nanoelectromechanical systems (NEMS) devices on a silicon-on-insulator platform.
- **Work hands-on in the DTU Nanolab cleanroom** with electron-beam, optical lithography, plasma etching, deposition, oxidation, metallization, passivation, doping, ion implantation, vapor-phase etching, and related processes.
- **Own mask layout and tape-out preparation** using tools such as GDS Factory, KLayout, L-Edit, Cadence Virtuoso, or similar softwares.
- **Coordinate commercial photonic and electronic foundry runs,** including MPW and dedicated runs - from PDK selection and submission review to evaluation of returned wafers or dies.
- **Characterize and improve devices** using SEM, optical microscopy, profilometry, AFM, ellipsometry, or related metrology. Analyze variation, defects, yield, and root causes. Give feedback to the design team.
- **Build processes that others can repeat** by maintaining clear recipes, processes, SOPs, and lot records, while working closely with photonics, test, packaging, and external manufacturing partners.

What you bring

- A master’s degree or PhD in nanotechnology, microengineering, electrical engineering, photonics, materials science, applied physics, or a related field. A bachelor’s degree with strong relevant experience is also welcome.
- Hands-on experience in a micro- or nanofabrication cleanroom and practical knowledge of several relevant process modules.
- Experience with mask layout, PDK-based design, or commercial foundry tape-outs such as an MPW or dedicated run.
- A structured approach to experiments, troubleshooting, process control, documentation, and data analysis.
- Good English communication skills and the ability to work independently while collaborating across disciplines.

It is a plus if you have

- Experience with silicon photonics, packaging, photonic passive and active devices, quantum devices, MEMS/NEMS, or other high-aspect-ratio nanoscale devices.
- Knowledge of high-resolution lithography, critical-point drying, surface passivation, doping, contamination-sensitive processes, or yield improvement.
- Experience transferring a research process towards repeatable prototype or commercial manufacturing.

Why join us?

- Join the core team at an early stage, with opportunities to grow alongside the company and potentially build and lead a team of engineers and scientists.
- Join an ambitious Danish deep-tech start-up with access to state-of-the-art laboratory facilities.
- Own critical fabrication work instead of being limited to one small part of the process.
- Work on technology that can meaningfully reduce the power used by future technologies.
- Help shape our cleanroom, foundry integration, and scale-up strategy as the company grows.
- Join a collaborative international team with strong academic and industry connections.

Role details

Full-time | Kgs. Lyngby, Denmark | Regular on-site cleanroom and laboratory work | Start date by mutual agreement. Salary according to the experience.

Ready to apply?

Apply through the link accompanying this post with your CV and a short note about your motivation and the fabrication, mask-layout, or foundry work you are most proud of.

Link: https://www.lizardphotonics.com/job-application

We value different perspectives and are committed to an inclusive workplace. You do not need to match every preferred qualification to apply - if the role excites you and your experience gives you a strong foundation, we would like to hear from you.