

Senior Process Scientist/Engineer, Photonic Integrated Circuits - Santa Barbara, CA

About QPICs

QPICs Inc. is advancing the frontier of photonic devices and systems — smaller, lighter, and more power-efficient. As opto-electronics transforms, photonic integrated circuits (PICs) are being adopted across quantum computing and sensing, communications, LIDAR, and AR/VR. QPICs is a fast-turn PIC foundry built to meet this moment: we deliver devices in weeks rather than months; we work across a wide and growing range of photonics materials beyond CMOS-compatible limits; and we scale with our customers, from rapid prototyping to volume production.

The Role

QPICs Inc. is seeking a highly motivated and experienced Integrated Photonics Process Scientist/Engineer to lead the development and implementation of new fast-turn fabrication processes for cutting-edge photonic integrated circuits (PICs). This senior role is well suited for someone who can translate ambitious device requirements into robust, manufacturable process flows. In addition to core SOI and silicon nitride platforms, this role will help advance platforms for materials with high nonlinear and electro-optical coefficients, including thin-film lithium niobate and barium titanate oxide.

Core Responsibilities

- Lead development and optimization of fast-turn fabrication processes for photonic integrated circuits, with a clear path to repeatability, yield improvement, and transfer to higher-volume manufacturing.
- Own process integration strategy across lithography, deposition, etch, bonding, and thermal steps, identifying key tradeoffs and establishing process windows.
- Define qualification plans, process monitors, and critical-to-quality metrics, and use data to drive root-cause analysis and continuous improvement.
- Select, qualify, and help commission process, metrology, and inspection tools required to support PIC platform development.
- Partner closely with designers, customers, and internal stakeholders to translate device requirements into manufacturable flows and actionable development roadmaps.
- Contribute to development of PDKs by characterizing process performance, variability, and device-impacting parameters such as propagation loss, insertion loss, and power handling.
- Mentor engineers and scientists, document best practices, and help build a disciplined, scalable process development culture.

Desired Qualifications

- Ph.D. or M.S. in physics, electrical engineering, materials science, chemistry, or a related field, with 10 or more years of relevant industry or advanced research experience.
- Deep hands-on experience in nanofabrication for photonic devices, including lithography, etching, deposition, metrology, process integration and control. Thorough knowledge of factors driving loss in photonic waveguides is highly valued.
- Demonstrated track record of leading complex process development efforts and delivering technical results in fast-paced R&D, pilot-line, or manufacturing environments.
- Experience with heterogeneous integration or wafer/chip bonding is valued.
- Experience in photonic device design, simulation, or PDK development is highly valued.
- Strong data analysis, troubleshooting, and technical communication skills, with the ability to guide cross-functional decisions.
- Ability to work independently, prioritize effectively, and provide mentorship in a collaborative startup environment.

Why Join QPICs

Join this entrepreneurial project on the ground floor! You will have visible impact at an early-stage company working at the frontier of photonics. Please submit a resume and a cover letter indicating your enthusiasm for the role, your understanding of the challenges, and how your experiences contribute to success in this role.

Immigration Status: US Citizen or US Permanent Resident

Salary Range: \$160,000 - \$200,000, plus equity incentives

Benefits: Group medical insurance; dental, vision, and other benefits are expected to be added as the team grows.

Work Location: Santa Barbara, CA

Work Arrangement: On-site

Website: www.qpics.com

Contact: Chris Myatt, CEO, chris.myatt@qpics.com, (303) 359-5527

QPICs Inc. is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, protected veteran status, or any other characteristic protected by applicable federal, state, or local law.