R&D Microfabrication Engineer

About ICON Photonics

ICON Photonics is a deep tech start-up company in the field of microtechnology applied to photonics applications. The company offers a world-level unique technology to shape photon beams with on-chip 3D polymer microptics technology addressing the very high-speed photonics market. Driven by constant quest for innovation and growth, ICON Photonics vision is to be recognized as a key photonics international industrial player developing the next generation photonics packaging solutions into a growing dynamic market such as Datacom, 5G, IA, Quantum computing, LIDAR, LIFI. Spinoff from a R&D technological Center and incorporated in 2018 by the two scientists and patent authors, ICON Photonics is developing a strong industrial and R&D activity.

The Role

The successful candidate will be in charge of the micro and nano fabrication process for the R&D developments. Responsibilities cover a range from the layout design and fabrication to the final quality control. This is a great opportunity to join an entrepreneurial spirit on a rising and dynamic technological startup operating on international markets.

Major Responsibilities / Tasks

- Participate/Lead to the wafer-level microfabrication process R&D development into a class-100 Silicon-MEMS cleanroom.
- Develop, analyze, and troubleshoot production processes using engineering tools, methods, and techniques.
- Drive continuous improvement & optimization activities to meet production targets, including capacity, quality, and performance.
- Collaborate with the appropriate teams to assess and recommend technologies that support company product needs and future developments.
- Participate to industrial meetings as well as international technical and scientific international events and conferences.
- Assist marketing and customers into the definition of new products by driving feasibility studies, and providing estimation of future product performance.
- Create and update the company’s technological and technical documentation.

Major Desired Skills

- PhD in applied sciences, material engineering or electronics (preferably in the semiconductor/photonics)
- Strong manufacturing background in micro-technologies including microelectronics, photonics, optoelectronics. Good understanding of semiconductor lasers, photodetectors and other optoelectronic device theory.
- The physical and chemical basis of micro- and nanofabrication techniques, as well as MEMs process, optoelectronics and photonics characterization experience.
- Strong layout design skills to support process, device or system designs and scientific simulations software.
- Experience in laboratory instrumentation including with RF and photonics measurements.
Analytical approach to problem solving
Strong motivational and self-learning skills
Strong communication, interpersonal, and related skills
Ability to lead and manage a team of colleagues
First experience

We offer

Become a R&D microfabrication engineer of a technological startup, building the bridge between research and industry into an international dimension
Experience a fast-paced entrepreneurial environment
Opportunity to join a dynamic and highly motivated international team
Scientific research environment of excellence (ESIEE Paris, CNRS-ESYCOM laboratory)

Application details:

Starting Date: September 2020 (flexible)
Language: French and English (strong written and verbal communications levels are required)
Location: Scientific Campus at Cité DESCARTES, Champs-sur-Marne (77), RER A train station
Contacts: Send CV and motivation letter to join-us@icon-photonics.com