

**CCRAFT SA**

Rue Jaquet-Droz 1  
2000 Neuchâtel, Switzerland  
[info@ccraft.com](mailto:info@ccraft.com)  
+41 32 720 51 14



**Job ID: LAB2501**

## **Senior Photonic Test and Characterization Engineer**

### **The company**

CCRAFT is a photonic chip foundry specialized in thin-film lithium niobate (TFLN) technology. With in-house, industrial-grade fabrication, we enable innovation across telecom, datacom, quantum, and sensing. Our offering spans MPW, custom, and high-volume wafer runs, all supported by a derisked Process Design Kit (PDK). Beyond fabrication, we test and characterize our components to validate the real performance of our technology and continuously maintain and enhance our PDK library. Combining manufacturing excellence, design enablement, and rigorous validation, CCRAFT helps partners bring reliable, high-performance optical systems to market.

### **The role**

We are seeking a **Senior Photonic Test and Characterization Engineer** to lead the measurement and qualification of CCRAFT's PDK building blocks (passive, active, and nonlinear). You will advance our characterization lab by building new setups and enhancing automation of our chip and wafer test setups, for reliable data acquisition and analysis. The role combines lab infrastructure development, workflow optimization, and team supervision to ensure consistent, high-quality results that directly support process and PDK validation.

### **Responsibilities**

#### **PIC Characterization**

- Measurement of TFLN photonic chips encompassing building block library components spanning from passive components to advanced modulators and nonlinear blocks.
- Calibration and reference procedures to ensure testing repeatability and traceability.
- Measurement automation (scripting in Python, LabVIEW, or equivalent).

#### **Data Analysis & PDK Feedback**

- Process, analyze, and visualize measurement results to extract key performance metrics.
- Collaborate with the PDK team to translate measurement data into updated compact models, and process qualification datasets.
- Collaborate with the foundry team to identify trends, performance drifts, and correlations between fabrication data and lab results.
- Maintain a structured database of characterization results.

#### **Lab Infrastructure & Development**

- Drive the lab enhancement with quality assurance tests and tooling.
- Setup and lab maintenance, calibration, documentation, and operation protocols.
- Contribute to the selection and installation of new instruments and lab expansion.

#### **Collaboration & Continuous Improvement**

- Key contact to our foundries OSAT partners.
- Provide technical input for customer reports, datasheets, and qualification documents.
- Communicate findings clearly, in technical summaries and improvement reports.
- Take ownership of the characterization work flow, with ability to mentor junior engineers.

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## Requirements

### Essential

- MSc or PhD in Integrated Photonics, Optical Engineering, Applied Physics, or related.
- 3+ years of industrial experience in photonic chip characterization, setup building, and data acquisition and analysis.
- Expert with setups comprising fiber alignment, laser sources, optical spectrum analyzers, RF sources/analyzers, VNA, AWG, interferometric setups, etc..
- Proficiency in automation and data analysis using Python, MATLAB, or LabVIEW.
- Deep understanding of fundamentals of integrated photonics and nonlinear phenomena.
- Excellent written and spoken English.

### Other

- Familiarity with quality assurance standards in semiconductor manufacturing.
- Familiarity with datacom and telecom measurement methods and protocols.
- Experience with PIC packaging is a plus.
- Experience with PDK development is a big plus.
- Familiarity with the OSAT and Foundry ecosystem and related tool vendors.
- Capable of statistically analysing complex datasets, and identifying performance trends.
- Competent in test documentation, calibration routines, and lab workflow optimization.
- Analytical, organized, and proactive, capable of managing priorities.
- Ambition to grow into a team leadership / management position as the foundry scales.

## Conditions & Benefits

- Permanent position, competitive salary, performance bonus, ESOP participation.
- Based at CCRAFT's headquarter in Switzerland, with flexible hybrid scheme.
- Collaborative, low-hierarchy team, valuing initiative, transparency, and growth.
- Being a core team member in a high-potential startup with global impact and recognition, shaping CCRAFT's lab ecosystem.
- Professional development through conferences, training, and industry engagement.
- Access to state-of-the-art lab infrastructure.

## How to apply

Send your application to [careers@ccraft.com](mailto:careers@ccraft.com) as a **single PDF file** (name: **Job-ID\_YourName**) containing:

- 1-page cover letter outlining what you bring to CCRAFT, what CCRAFT brings to you, and what CCRAFT and you could bring to others.
- 2-page CV with focus on relevant experience.
- Contact details for 2 references.

Email subject: **Job-ID\_YourName**

Your application should reach us no later than **November 20<sup>th</sup>**.

We will contact you shortly after the application deadline.