



Modèle Fichedescriptiondeposte v1.0.0

Référence : ALMAE/DIR/MFD/21/000X _Fiche de description de poste

JOB DESCRIPTION

position : R&D engineer

Company description

Almae Technologies is a growing SME which designs and manufactures InP-based innovative semiconductor optoelectronic devices, with a disruptive and versatile technology, mainly for telecom and datacom applications.

The activity covers from design, epitaxial growth and clean-room fabrication of wafers, up to backend for validation of chips on carrier. With its InP semiconductor technological full fabrication line, Almae's mission is to be a reliable, world-class partner and supplier to industries that use advanced laser technologies.

The company is a 40 employees spin-off from an industrial research lab, located south of Paris in the Optics Valley. Over half of our technical team holds a PhD degree in the field, including young doctors and world recognized experts in optoelectronic devices and semiconductor materials growth. Almae offers a unique balance between a mature production line of devices for current market, and a strong R&D activity on next generation products such as very high-speed transmitters and high power lasers.

Today, we seek a talented and motivated optoelectronic R&D engineer to pursue our developments on very high-speed transmitters.

Missions

- Take in charge the complete fabrication process (except epitaxy) of the devices, with critical analysis of the different steps. Propose and validate new building blocks to improve performances and provide technological breakthroughs.
- Interact with back-end team and support device testing (static LIV, spectrum, electro-optical bandwidth, eye diagram).
- Analyse and provide a synthesis of the results, to validate optimum configurations, understand possible limitations and propose design and process improvements.
- Perform waveguiding simulations, and generate mask layout with design of experiments (DOE) to scan all pertinent configurations with adapted test vehicles.
- Have a direct technical interaction with customers or partners (visioconferences, meetings, delivery reports, ...).
- Monitor state-of-the art, contribute to building our patent portfolio and valorise technology with international publications and conferences.



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Skills and qualification

MS or PhD degree in Engineering in Physics, specializing in Photonics and semiconductor optoelectronic devices, or in semiconductor materials, with experience in the following:

- Clean room semiconductor fabrication (lithography, ICP / RIE etching, dielectric / metal deposition, ...)
- Semiconductor physics (optical waveguiding simulations, high frequency design, photonic integrated circuits, ...), with first authorship publications in peer-reviewed top journals and conferences

The candidate should have strong technical background in the domain. Even if competences do not cover all the requirements, he/she must have the capacity to learn fast and quickly acquire the required know-how.

He/she must have a strong motivation and autonomy, with innovative thinking. The objective is to be quickly able to fully take in charge a project, from customer demand to design, fabrication, test, and results synthesis. We need a person with ability for rigorous analysis, synthesis and with a solution oriented spirit.

He/she will have to interact daily with colleagues from a broad panel of expertise, requiring strong team spirit and communication skills, and the ability to learn from peers, and to share knowledge.

Work location and benefits

Permanent contract (CDI), with 2 -months initial trial period (renewable once)

Paid time off: French public holidays, 5 weeks annual vacation, 2 weeks by agreement on reduction of working time (RTT)

Corporate savings plan (PEE)

Health care plan

Work location : Site DATA4, route de Nozay, 91460 Marcoussis, France (possible access by public transportation)

Contact : career@almae-technologies.com