COMPANY DESCRIPTION

Almae technology is a young growing start-up, that designs and manufactures InP-based innovative semiconductor devices, based on a disruptive and versatile technology, mainly for telecom and datacom applications.
The activity covers design, epitaxial growth and clean-room fabrication of wafers, as well as backend for validation of chips on carrier. Almae offers a 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.
Our 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.

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

KEY JOB DUTIES AND RESPONSABILITIES

- Design and modelling of InP transmitter based on DFB laser integrated with high-speed electro-absorption 100Gb/s modulator
- Develop new building blocks to improve performances and provide technological breakthroughs
- Generate mask layout with design of experiments (DOE) to scan all pertinent configurations with adapted test vehicles
- Fabricate wafers in clean room for efficient and rapid prototyping
- Support device testing (static LIV, spectrum, electro-optical bandwidth, eye diagram)
- Analyse and synthetise results of the DOE, validate optimum designs, and define improvement loops.
- Interact technically with a wide range of partners or customers through direct research contracts or European projects.
- Monitor state-of-the art, contribute to building our patent portfolio and valorise technology with international publications and conferences

SKILLS AND QUALIFICATION

MS or PhD degree in Engineering in Physics, specializing in Photonics and semiconductor optoelectronic devices design, with 3+ years experience in the following:

- InP photonic device: in-depth understanding of semiconductor physics, high frequency design, photonic integrated circuits, with first authorship publications in peer-reviewed top journals and conferences
- Optical simulations software (FDTD, BPM, band diagrams, transfer matrix, …), and photonic design CAD tools
- Clean room semiconductor fabrication (lithography, ICP / RIE etching, dielectric / metal deposition, …)

The candidate should have high technical knowledge in the domain, with ability for rigorous analysis, synthesis and problems solving.
He/she should show a strong motivation and autonomy, with innovative thinking.
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 transmit to, and learn from peers.

WORK LOCATION AND BENEFITS

Permanent contract, (39 hours per week) with a 3-months initial trial period.
Paid time off (5 weeks annual vacation, public holidays)
Agreement on reduction of working time (RTT), corresponding to two weeks of additional leave.
CET (Time Saving Plan)
Corporate savings plan (PEE)
Health care plan
Family leave (maternity, paternity)

Work location : Site DATA4, route de Nozay, 91460 Marcoussis, France.

Contact : career@almae-technologies.com