

## Researcher

### We have a **Research position** available on **Numerical modeling of Germanium-Silicon Quantum-Confined-Stark-Effect electro-absorption modulators (EAM) and Avalanche Photodetectors (APD)**

For our new ICT EU research project **SIPHO-G**,  
**Advanced GeSi components for next-generation silicon photonics applications**, we are seeking a new team member with a strong interest in modeling the quantum physical properties of semiconductor nanodevices such as Quantum-Confined-Stark-Effect electro-absorption modulators (EAM) and Avalanche Photodetectors (APD).

#### Your responsibilities

- Software development for Germanium-Silicon Quantum-Confined-Stark-Effect electro-absorption modulators (EAM) and Avalanche Photodetectors
- Simulation of Ge-Si QCSE EAMs and APDs
- Closely interacting with the consortium partners and travel to project meetings
- Managing EU projects and writing project reports
- Contributing to the development of our nextnano software
- Customer support

#### Your qualifications

- Master or PhD degree in Physics or Electrical Engineering with relevant experience in Theoretical Solid State Physics, Semiconductor Physics and Quantum Mechanics
- Programming Skills
- Excellent, open-minded, entrepreneurial and team-spirited

---

#### Postal address

nextnano GmbH  
Südmährenstr. 21  
85586 Poing  
Germany

Internet      www.nextnano.com  
Email        stefan.birner@nextnano.com  
Telephone    +49-8121-7603205  
Fax            +49-8121-7603206

VAT number      DE285616499  
Amtsgericht München HRB 201631  
Managing Director    Dr. Stefan Birner

#### Office address

nextnano GmbH  
Konrad-Zuse-Platz 8  
81829 München  
Germany

## Consortium members

- imec, Leuven, Belgium (Coordinator)
- Mellanox Technologies Ltd, Yokneam, Israel
- Ericsson Telecomunicazioni SpA, Pisa, Italy
- Applied Materials Belgium NV, Leuven, Belgium
- nextnano GmbH, Munich, Germany
- Aristotle University of Thessaloniki, Thessaloniki, Greece
- Luceda Photonics NV, Dendermonde, Belgium
- GLOBALFOUNDRIES Dresden Module One LLC & Co. KG, Dresden, Germany

nextnano GmbH develops software for the simulation of electronic and optoelectronic semiconductor nanodevices for research & development in academia and industry. It is a spin-off from the Walter Schottky Institute of the Technische Universität München and was founded in 2012. Our software is used by thousands of researchers in more than 35 countries. Our office is located in the AGENDIS Business Center Konrad at the historic site of Munich's former airport "München-Riem" (Wappenhalle) in Messestadt Riem next to the exhibition center "Messe München".

To find out more, please contact Dr. Stefan Birner, [stefan.birner@nextnano.com](mailto:stefan.birner@nextnano.com), [www.nextnano.com](http://www.nextnano.com)

---

### Postal address

nextnano GmbH  
Südmährenstr. 21  
85586 Poing  
Germany

Internet [www.nextnano.com](http://www.nextnano.com)  
Email [stefan.birner@nextnano.com](mailto:stefan.birner@nextnano.com)  
Telephone +49-8121-7603205  
Fax +49-8121-7603206

VAT number DE285616499  
Amtsgericht München HRB 201631  
Managing Director Dr. Stefan Birner

### Office address

nextnano GmbH  
Konrad-Zuse-Platz 8  
81829 München  
Germany