

POST-DOC POSITION ON WAFER-SCALE HETEROGENEOUS INTEGRATION OF III-V OPTO-ELECTRONIC COMPONENTS BY MEANS OF TRANSFER PRINTING

Ghent University – IMEC, Photonics Research Group
Tech Lane Ghent Science Park – Campus A
Technologiepark – Zwijnaarde 15, B-9052 Gent, Belgium

We are looking for a highly motivated post-doc to take up a research position on the integration of III-V semiconductors on 200 mm silicon photonics wafers, based on a novel integration strategy that we are developing, called transfer printing. The processes will be developed in the imec R&D labs after which it will be transferred to a commercial foundry. The goal is to integrate III-V near-infrared light sources and photodetectors on silicon photonic integrated circuits for sensing applications. The work will be carried out in the context of a large European project (MicroPrince) where several industrial players are involved. The work can be extended to the integration of other opto-electronic devices in different wavelength ranges as well, serving different applications.

EXPERIENCE:

- The candidate should have a PhD in the field of photonics
- The candidate should have experience with III-V processing and/or heterogeneous integration technologies
- The candidate should have experience with the design and characterization of opto-electronic components

APPLICATION:

Online application form: <http://photonics.intec.ugent.be/contact/vacancies/Application.htm>

MORE INFORMATION:

Prof. Gunther Roelkens (gunther.roelkens@ugent.be)

ABOUT THE PHOTONICS RESEARCH GROUP

The Photonics Research Group (about 85 people) is associated with IMEC, and is part of the Department of Information Technology of Ghent University. The group is headed by Prof. R. Baets and has been active in photonics device research for many years. The other professors in the group are P. Bienstman, W. Bogaerts, B. Kuyken, N. Le Thomas, G. Morthier, G. Roelkens and D. Van Thourhout. The main research directions are silicon nanophotonics, heterogeneous integration, optical communication, photonic (bio)sensors and photonic integrated circuits for biomedical applications in the near-infrared and mid-infrared wavelength range. More in particular, the silicon nanophotonics work focuses on the design and fabrication of SOI-based photonic devices using standard lithographic techniques compatible with CMOS-processing.



The Photonics Research Group has been coordinating the network of excellence ePIXnet and is involved in a number of EU-projects, including the FP7 projects ActPhast, PLAT4M, Cando, and Pocket and the H2020 projects TOPHIT, TeraBoard, PIX4Life, MIRPHAB and Phresco. Furthermore, the group is partner of the Center for Nano- and Biophotonics of Ghent University and the group has been awarded three ERC Independent Researcher Starting Grants, one ERC Consolidator Grant and one ERC Advanced Investigator Grant.