



## Postdoc position on Nanophotonic switches on silicon photonics platform

UGent/imec - Photonics Research Group  
Technologiepark-Zwijnaarde 15, B-9052 Ghent, Belgium  
<http://photonics.intec.ugent.be/>

---

You will develop an optical switching layer for guiding femtosecond laser pulses to an optical memory layer. The core elements to be developed will be a low power switch with sufficient bandwidth for switching sub-picosecond pulses and nanophotonic elements for coupling light out of the guiding layer with sub-wavelength localization.

The candidate will work both with the group of Prof. Van Thourhout at Ghent University and the group of dr. Van Campenhout at imec-Leuven. The work will involve design and advanced characterization. Part of the fabrication will be carried out in imec's pilot lines, part will be carried out by the candidate in the cleanroom labs of UGent and imec. The candidate will be responsible for the interaction between both groups and for the communication with the project partners. Therefore it is essential the candidate has good communication and interpersonal skills. The position will be carried out in the **H2020 SPICE project**.

Experience:

- The candidate should have a PhD in the fields of nanophotonics or plasmonics
- The candidate should have experience with advanced photonics simulations tools (FDTD, FEM, ...)
- Preferably the candidate has experience in nanofabrication and characterisation of photonic devices

Offer: 3 year position

Application:

Apply by filling in the [application form](#).

More information:

Prof. Dries Van Thourhout ([Dries.VanThourhout@UGent.be](mailto:Dries.VanThourhout@UGent.be))  
Dr. Joris Van Campenhout ([jvcampen@imec.be](mailto:jvcampen@imec.be))



### About 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 applications under study are silicon nanophotonics, heterogeneous integration, optical interconnect, WDM optical communication, silicon photonics biosensors 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 group is also strongly involved in the development of heterogeneous technologies, whereby the silicon photonics platform is combined with other materials such as III-V semiconductors for efficient sources, nanocrystals and polymers.

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 and one ERC Advanced Investigator Grant.

### About imec

Imec performs world-leading research in nanoelectronics and photovoltaics. Imec leverages its scientific knowledge with the innovative power of its global partnerships in ICT, healthcare and energy. Imec delivers industry-relevant technology solutions. In a unique high-tech environment, its international top talent is committed to providing the building blocks for a better life in a sustainable society. Imec is headquartered in Leuven, Belgium, and has offices in Belgium, the Netherlands, Taiwan, USA, China, India and Japan. Its staff of about 2,500 people includes about 740 industrial residents and guest researchers. In 2015, imec's revenue (P&L) totaled 415 million euro. Further information on imec can be found at [www.imec.be](http://www.imec.be). Stay up to date about what's happening at imec with the monthly imec magazine, available for tablets and smartphones (as an app for iOS and Android), or via the website [www.imec.be/imecmagazine](http://www.imec.be/imecmagazine). Imec is a registered trademark for the activities of IMEC International (a legal entity set up under Belgian law as a "stichting van openbaar nut"), imec Belgium (IMEC vzw supported by the Flemish Government), imec the Netherlands (Stichting IMEC Nederland, part of Holst Centre which is supported by the Dutch Government), imec Taiwan (IMEC Taiwan Co.) and imec China (IMEC Microelectronics (Shanghai) Co. Ltd.) and imec India (Imec India Private Limited).