

## Center for Integrated Technology and Organic Synthesis

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### Continuous flow synthesis and (bio)functionalization of Quantum Dots

A PhD position is open at the Center for Integrated Technology and Organic Synthesis (Department of Chemistry, University of Liège, Belgium) in the field of continuous flow chemistry and microreaction technology. The position is available within the frame of a Win<sup>2</sup>Wall research program that gathers academic (ULiège, UMon) and industrial (Zentech, <http://www.zentech.be/>) partners. The overall research program aims at developing technologies with a direct impact for the industrial partner.

Our website: [www.citos.uliege.be](http://www.citos.uliege.be)

#### Project summary

This research program (Q<sup>3</sup>DROPS) aims at the development of scalable continuous flow processes for the preparation of high quality Quantum Dots (QDs) and their functionalization with biomolecules. This project is multidisciplinary in essence and requires regular interactions with Physicists and Engineers.

#### Profile

The applicant must have a degree in (organic) chemistry, and an interest for applied chemistry and physics. The successful applicant is highly motivated and has excellent problem solving, and analytical skills. He/she has a strong background in organic and inorganic chemistry. An experience in nanoparticles/QDs synthesis and characterization is mandatory. An experience in flow chemistry and microreaction technology is not mandatory, but preferred. He/she will contribute to the synthesis and characterization high quality QDs, as well as the development and the optimization of functionalization/bioconjugation procedures. He/she will contribute to the development of scalable continuous flow technologies for the production of functionalized QDs. He/she is expected to have excellent interpersonal and communication skills.

#### Benefits

1 year stipend, renewable 4 times, within the frame of a Win<sup>2</sup>Wall research program at the University of Liège. The successful candidate will join a young, dynamic and multidisciplinary research team.

**Starting date: May 1, 2019.**

#### Contact

Interested applicants should send a brief description of research interests, a CV and the names of 3 references (before March 1, 2019) to: Prof. Jean-Christophe M. Monbaliu, [jc.monbaliu@uliege.be](mailto:jc.monbaliu@uliege.be)