

Curriculum vitae

Name: De Feyter
First Name: Steven
Institution: KU Leuven
Department of Chemistry
Division of Molecular Imaging and Photonics
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B-3001 Leuven (Belgium)



Function **Full Professor** at KU Leuven in the 'Division of Molecular Imaging and Photonics', Department of Chemistry (since 2011).

Career

11/2016-12/2016 Visiting professor Osaka University
08/2012-07/2016 Chair Department of Chemistry (KU Leuven)
10/2011-... Full professor (KU Leuven)
10/2008-09/2011 Professor (KU Leuven)
10/2004-09/2008 (Part-time) Associate Professor (KU Leuven)
10/1998-09/2007 Postdoctoral fellow Research Foundation – Flanders (FWO)
03/1998-06/1999 Postdoctoral research fellow and Fulbright fellow at the California Institute of Technology (Caltech), Pasadena, in the group of Prof. Ahmed Zewail
10/1993-09/1997 PhD student, financed by Research Foundation – Flanders (FWO) in the group of Prof. Franc C. De Schryver (KU Leuven).

Studies

1993-1997 Ph.D. in Chemistry at KU Leuven (promotor: Prof. Frans C. De Schryver)
Topic: "Visualisation of ordering, chirality and reactivity on a molecular scale with scanning tunneling microscopy".
1991-1993 Licentiate Chemical Sciences at the KU Leuven,
Summa cum laude
1989-1991 Candidate Chemical Sciences at KU Leuven,
Magna cum laude

Research

Nano(bio)chemistry on surfaces is the core activity of the group. To please our “seeing is believing” desire, we use **high-resolution scanning probe microscopy** techniques such as scanning tunneling microscopy and atomic force microscopy, sometimes combined with optical microscopy techniques, to unravel the beauty and function of multi-(bio)molecular assemblies on surfaces. The liquid-solid interface is our preferred playground.

Molecular self-assembly on surfaces is a central research theme, with a focus on the relation between structure and function. We investigate not only the self-assembly of low molecular weight molecules, but also polymers and biomolecules. In addition to the **non-covalent supramolecular chemistry** approach, we recently put more emphasis on the functionalization of surfaces using covalent chemistry. Whatever the functionalization approach, nanostructuring is the keyword: we aim at spatially controlling the ordering of molecules on surfaces, via **bottom-up** approaches as well as **nanolithography**. These approaches are not only ideal to decorate and functionalize “traditional” surfaces such as “graphite and gold, but bring clear advantages for the controlled functionalization of **2D materials** (graphene, MoS₂, ...). A recent development is the on-surface synthesis of **2D polymers**, as well as the investigation of their formation in real-time with submolecular resolution.

Awards and Grants

2019	Lavoisier Lectures (Université Paris Diderot)
2018	Elected member of the “European Academy of Sciences”
2016	26th IOCF Yoshida Lectureship
2014	Elected member of the Royal Flemish Academy of Belgium for Science and the Arts: Natural Sciences
2013	European Research Council (ERC) Advanced Grant (NANOGRAPH@LSI)
2010	Laureate of The Royal Flemish Academy of Belgium for Science and the Arts: Natural Sciences
1997-1998	Fulbright fellow
1997	Laureate “DSM-prize of Chemistry and Technology 1997”