

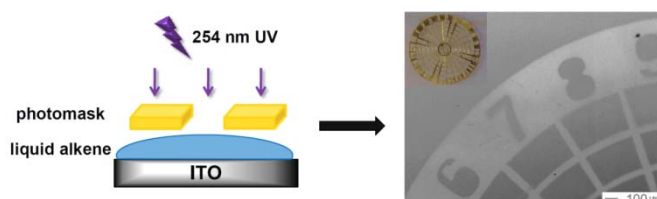
# UniCat Colloquium

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Lecturer: **Prof. H. Zuilhof**, Laboratory for Organic Chemistry, Agrotechnology & Food Sciences, Wageningen University, The Netherlands

Title: **Romantic Surfaces: Objects of desire!**

Abstract: The modification of inorganic surfaces with (bio-)organic moieties provides the possibility to give entirely new functions to supposedly well-known substrates. The presentation will illustrate this based on a few principles also relevant to love: long-term stability,<sup>1</sup> and specific recognition.<sup>2</sup> To reach this aim, attention will be given to novel highly detailed surface characterizations, smooth 'add and just stir' metal-free organic click reactions, and high-end applications relating to *all-solid* molecular gates<sup>3</sup> and silicon nanoparticles.<sup>4</sup> For example, functionalized Si and ITO surfaces can be prepared by the photochemical grafting with 1-alkenes (see Figure 1). The presentation will outline novel analytical techniques (how do we know our cartoons are correct?!), recent developments in the stable (bio-)functionalization of substrates and nanoparticles, and finish off with a series of biological applications.



**Figure 1.** Functionalization of ITO: Formation of covalently linked organic monolayers onto Indium Tin Oxide surfaces.

- References: 1) Li, Y.; Zuilhof, H. *Langmuir* **2012**, *28*, 5350.  
2) Li, Y.; Giesbers, M.; Gerth, M.; Zuilhof, H. *Langmuir* **2012**, *28*, 12509.  
3) Fabre, B.; Scheres, L.; Pujari, S.; Li, Y.; Zuilhof, H. *Angew Chem Int Ed* **2013**, 12246.  
4) Dohnalova, K.; Zuilhof, H.; Gregorkiewicz, T. et al. *Nature Light* **2013**, *2*, e47.

Find more about Prof. Zuilhof on his website:  
<http://www.wageningenur.nl/en/Persons/prof.dr.-JT-Han-Zuilhof.htm>

Date: **Wednesday, January 22<sup>nd</sup>, 2014 at 5:15 pm**

Location: **TU Berlin, Department of Chemistry  
Straße des 17. Juni 115, 10623 Berlin  
Building C, Lecture Hall C 264**

Organizer: **Dr. Anna Fischer (TUB)**

Coffee and tea will be served thirty minutes prior to the lecture start.  
**Guests are cordially invited to attend!**

Prof. Dr. Matthias Driess, Chair of the Cluster of Excellence UniCat