

# Towards high-precision chemistry: Approaches to temporal and spatial control over bond formation



Humboldt-Universität zu Berlin  
Prof. Stefan Hecht

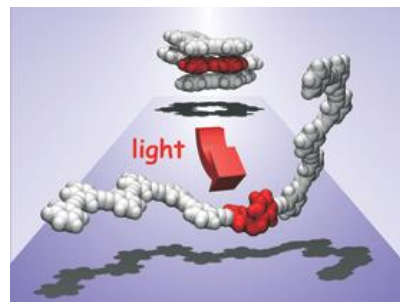
## 講演概要:

Organic synthesis enables the precise generation of functional molecular building blocks and constitutes the basis of chemical approaches that our group is developing to address various aspects of materials science. We are convinced that the design of custom-tailored molecular nano-objects and their integration into functional nanosized structures will be key to the future bottom-up fabrication of miniaturized devices and the creation of new responsive “smart” materials. Our work is primarily focused on the synthesis of small as well as large molecules with defined shape and function. For this purpose we are focussing on merging covalent as well as non-covalent syntheses (foldamers and self-assembly) and incorporate photochromic moieties (azobenzenes, diarylethenes, and spiropyrans) into molecular systems to control and even drive them by external stimuli, in particular light. Complementing our synthetic efforts, we are investigating structure-property relationships of the resulting materials on both the single molecule and the ensemble levels in solution and in the bulk as well as at interfaces.

The presentation will provide an overview and highlight some of our recent activities in a variety of different areas, in particular focussing on remote-controlled reactivity and catalysis as well as surface-confined chemistry.

For more information, visit [www.hechtlab.de](http://www.hechtlab.de)

Photoswitchable Foldamers



# 2014年3月13日(木)

## 10:00~11:00

場所:北海道大学 電子科学研究所1F 会議室

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