



## Einladung zum Kolloquium

Am Mittwoch, den 17. Juni 2009, 17:00 Uhr, spricht

**Herr Prof. Dr. Eric Masson**

Department of Chemistry and Biochemistry, Ohio University

zum Thema:

### **Nanoscopic Tweezers and Self-Sorting Rotaxanes: an Excursion into the World of Molecular Machines**

Living organisms owe their phenotypes, their functionalities and their survival to the intricate interplay between myriads of molecular machines, in which self-assembly and self-sorting between various chemical entities (nucleic acids, proteins, *etc.*) play a crucial and fascinating role. A molecular machine is commonly defined as a supramolecular assembly designed to perform mechanical-like movements (*i.e.* an output signal) upon activation with an appropriate stimulus (*i.e.* the input). In this talk, I will describe the design, the synthesis and the evaluation of a pH-responsive fluorescent “molecular tweezer”. Aesthetically appealing interlocked structures, such as rotaxanes and catenanes, can also undergo remarkable stimulus-triggered motions. I will describe the kinetically controlled self-sorting properties of a polyaminated axle with cucurbit[6]- and cucurbit[7]uril cavitands, and the controlled scrambling of the cavitands along the axle upon thermal activation.

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**Alle Interessenten sind zu diesem Vortrag herzlich eingeladen.**

Prof. Dr. E. Hey-Hawkins  
Sprecherin der  
Graduiertenschule BuildMoNa

Prof. Dr. H. Krautscheid  
Dekan

Die Professoren des Institutes  
für Anorganische Chemie

Nähere Informationen bei Frau Professor Dr. E. Hey-Hawkins, Tel.: 36151