

# UniCat Colloquium

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- Lecturer: **Prof. Joseph Wachtveitl,  
Institut für Physikalische und Theoretische  
Chemie, Goethe Universität Frankfurt/Main**
- Title: **Conformational dynamics of photoswitchable  
peptides -  
Primary reactions of microbial rhodopsins**
- Abstract: Triggering molecular processes with light is an ultrafast method which allows exerting spatial and temporal control over chemical and biological processes and is widely applied in photo-responsive systems ranging from small model compounds to large chromoproteins. In the first part of the talk the photoresponse of azopeptides will be addressed. Several secondary structure elements have been studied in detail with time resolved UV/vis and IR spectroscopy. The recent development of light-responsive tertiary structures yields the next generation of model peptides on the way towards an understanding of protein folding. In the second part of the talk a comparative analysis of the primary reactions of two retinal proteins, the bacterial proton pump proteorhodopsin and the light-gated ion channel channelrhodopsin-2 are presented and discussed within a unifying molecular model for retinal photoisomerization.
- Date: **Wednesday, 12 January 2011**
- Time: **5:15 pm - around 6:45 pm**
- Location: **TU Berlin, Institute of Chemistry  
Building C, Lecture Hall C 243  
Straße des 17. Juni 115  
10623 Berlin**
- Organiser: Prof. Dr. Karola Rück-Braun (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