

CEF- Symposium



Macromolecular
Complexes

Cluster of Excellence
Frankfurt

Light-Regulation in Chemistry and Biology

Meeting Venue:

Schloss Rauschholzhausen
Ferdinand-von-Stumm-Straße
35085 Rauschholzhausen



CC: Paolo Lastrico MPIGP - 250-10-2009

9-10 November 2009

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Ferdinand-von-Stumm-Straße
35085 Rauschholzhausen

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Organizing committee:
Alexander Heckel, Andreas Dreuw,
Harald Schwalbe, Josef Wachtveitl

Light-Regulation in Chemistry and Biology

PROGRAM

9 November

- 9:30 **Opening** - Alexander Heckel, Frankfurt
- 9:40 **Friedrich Temps** (Kiel) - Ultrafast radiationless dynamics in electronically excited DNA building blocks
- 10:20 **Josef Wachtveitl** (Frankfurt) - Ultrafast conformational dynamics of azopeptides
- 10:50 **Coffee break**
- 11:20 **Harald Schwalbe** (Frankfurt) - Enlightened NMR-spectroscopy
- 12:00 **Jens Bredenbeck** (Frankfurt) - Dynamics of photo-switchable biomolecules and biomimetics by 1D and 2D IR spectroscopy
- 12:30 **Georg Wille** (Frankfurt) - Shedding light on carboxylations: infrared spectroscopy and caged CO₂
- 13:00 **Lunch**
- 14:20 **Maurice Goeldner** (Strasbourg) - Two-photon uncaging: a new challenge for chemists and biologists
- 15:00 **Alexander Heckel** (Frankfurt) - Shedding light on nucleic acids
- 15:30 **Karola Rück-Braun** (Berlin) - Light-directed protein-binding
- 16:00 **Coffee break**
- 16:30 **Armağan Koçer** (Groningen) - Shedding light on the mechano-sensitive channels
- 17:10 **Clemens Glaubitz** (Frankfurt) - Proteorhodopsin - biophysical NMR studies on a marine photoreceptor
- 17:40 **Dirk Trauner** (München) - Controlling neuronal networks with molecular switches
- 18:10 **Dinner**
- 19:30 **Posters session**

10 November

- 9:00 **Joachim Heberle** (Bielefeld) - FT-IR meets electrophysiology: surface-enhanced IR absorption difference spectroscopy (SEIDAS) of membrane photoreceptors
- 9:40 **Ernst Bamberg** (Frankfurt) - Channelrhodopsins: molecular properties and applications in neuro- and cellbiology
- 10:10 **Alexander Gottschalk** (Frankfurt) - Light-control of synapses, neurons and animal behavior in the nematode *Caenorhabditis elegans*
- 10:40 **Coffee break**
- 11:10 **Christel Marian** (Düsseldorf) - On the nature of the ICT state in peridinin and other carbonyl carotenoids
- 11:50 **Andreas Dreuw** (Frankfurt) - Quantum chemical methods for the description of photobiological processes
- 12:20 **Lunch**
- 13:40 **Markus Braun** (Frankfurt) - Ultrafast photochromism of indolylfulgides
- 14:20 **Robert Tampé** (Frankfurt) - Nanomolar interaction for in situ organization of macromolecular complexes triggered by light
- 15:00 **Closing remarks** - Harald Schwalbe, Frankfurt