

UNIVERSITY OF BAYREUTH

A modern research-oriented Campus-University with about 12 000 students and well-equipped laboratories and libraries. Relevant interdisciplinary research priorities:

- Macromolecular and Colloid Research
- New Materials
- Molecular Biosciences

Additional Information is available at:

www.uni-bayreuth.de

LIVING IN BAYREUTH

Bayreuth is a small, yet lively university town with nice pubs and restaurants. It offers a high quality of life and a beautiful natural environment at affordable costs.

www.bayreuth.de



Someday we will all be sitting in Bayreuth and asking ourselves how we could ever have lived elsewhere. Friedrich Nietzsche

CONTACT

GRK 1640 – Multichromophoric Systems

Speaker: [Prof. Dr. Jürgen Köhler](#)

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Additional Information is available at:

www.multichromophores.uni-bayreuth.de

APPLICATIONS

The GRK invites applications for PhD positions. Applications are continuously considered. The applicants should hold a masters or diploma degree in chemistry, physics or related fields from a higher education institution. Applications should comprise a letter of interest, professional CV, scanned certificates together with a contact for recommendation.

DFG Research Training Group
DFG Graduiertenkolleg

GRK 1640



Photophysics of Synthetic and Biological Multi-chromophoric Systems

www.multichromophores.uni-bayreuth.de



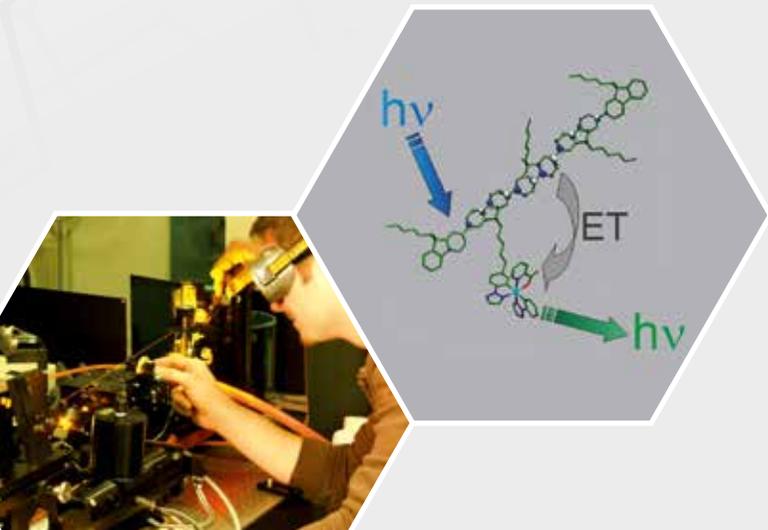
 UNIVERSITÄT
BAYREUTH

RESEARCH

Multichromophoric systems are of great fundamental interest because they feature many important concepts from condensed matter physics and chemistry.

Moreover, they play a prominent role in processes of considerable practical importance, such as biological light harvesting in photosynthesis, technological efforts to build organic solar cells, and molecular electronics in general. Progress in this field requires truly interdisciplinary efforts, combining concepts, knowledge, and techniques from physics and chemistry. The DFG-sponsored GRK 1640 is an interdisciplinary PhD program, providing excellent research opportunities for chemists and physicists. The GRK offers to its students access to all aspects of the research

- the tailored synthesis of multichromophoric systems by modern chemical methods
- experimental studies of photophysical processes in synthetic and biological multichromophoric systems with a special emphasis on quantum coherence
- theoretical analysis based on first principles calculations.



SCIENTIFIC PROGRAM

Principal Investigators

- **Prof. Dr. Jürgen Köhler (Speaker)**
Spectroscopy of Soft Condensed Matter
www.ep4.phy.uni-bayreuth.de
- **Prof. Dr. Stephan Förster**
Nanoscale Structure Analysis
www.pci.uni-bayreuth.de
- **Jun.-Prof. Dr. Stephan Gekle**
Computational Molecular Dynamics
www.biofluid.physik.uni-bayreuth.de
- **Dr. Richard Hildner**
Photophysics of Functional Materials
www.ep4.phy.uni-bayreuth.de/ag_jkoehler/de
- **Prof. Dr. Anna Köhler**
Organic Semiconductors
www.ep2.uni-bayreuth.de/koeehler
- **Prof. Dr. Stephan Kümmel**
Theory of Electronic Structure and Dynamics
www.tp4.uni-bayreuth.de
- **Prof. Dr. Markus Lippitz**
Ultrafast Nanooptics
www.ep3.uni-bayreuth.de
- **Prof. Dr. Peter Strohriegl**
Macromolecular Chemistry
www.chemie.uni-bayreuth.de/mci
- **Prof. Dr. Mukundan Thelakkat**
Applied Functional Polymers
www.chemie.uni-bayreuth.de/mci
- **Prof. Dr. G. Matthias Ullmann**
Computational Biochemistry and Biophysics
www.bisb.uni-bayreuth.de

Associated Scientists

- **Prof. Dr. Richard Cogdell**
University of Glasgow, UK
Photosynthetic Membrane Proteins
www.gla.ac.uk/departments/biochemistrycellbiology
- **Prof. Dr. C. Neil Hunter**
University of Sheffield, UK
Function of Photosynthetic Membranes
www.sheffield.ac.uk/mbb/staff/hunter

QUALIFICATION CONCEPT

One of the central aims of the GRK is to offer a research-oriented, high-level education on the photophysics in multichromophoric systems to particularly motivated students. Our education concept rests on two columns, namely research-oriented learning and a specific study program. The formation of teams allows the students to work on their projects in collaboration with peers and in a subject-oriented group.

In the study program, we offer

- participation in international scientific conferences and workshops
- specific tutorials on research subjects of the participating scientists
- soft skill courses on scientific writing and presentations
- scientific guidance from a team of mentors

The PhD students are highly encouraged to visit the laboratories of collaborating research groups abroad.

The PhD program of GRK 1640 is part of the Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) offering a full PhD in an interdisciplinary and international environment.

