CONTACT

GRK 1640 – Multichromophoric Systems
Speaker: Prof. Dr. Jürgen Köhler

CONTACT ADDRESS
Claudia Geier
Secretary GRK 1640
University Bayreuth
Chair for Experimental Physics IV
Building NW II, Room 467
95440 Bayreuth, Germany
Telefon: + 49 921 / 55-4006
Telefax: + 49 921 / 55-4050
claudia.geier@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
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/koehler
• 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.