

#### **Polymers under Multiple Constraints**

The SFB 102 is a Collaborate Research Center at the Universities of Halle and Leipzig. Our focus is lying on open problems of polymer research which are characterized by the occurrence of strong correlations between local structure and global conformation of the chain. We investigate processes of structure formation and self-assembly of synthetic and biological chain molecules, for which the formation of molecular structures and the molecular dynamics are strongly affected by constraints like specific internal interactions, external forces, geometrical confinement, crowding or topological restrictions. Two prominent examples for such processes and central topics of the CRC are crystallization in the area of synthetic polymers and the formation of amyloids in the area of biopolymers.

Further information about our activities including the **Integrated Research Training Group 'Polymers: random coils and beyond'** can be found at: www.natfak2.uni-halle.de/sfbtrr102.

# FORSCHERGRUPPE FOR 1145

# Strukturbildung von synthetischen polyphilen Molekülen mit Lipidmembranen

Polymer-made nanostructures, assembled via chemical principles are a rapidly evolving field which enables to generate soft-materials with high diversity and significant advantages. Polyphilic ordering principles can be used to form and shape spatially complex morphologies, such as the formation of micro- and nano-compartments – a process widely known form Nature's compartment-formation. The DFG-funded Forschergruppe FOR 1145 investigates principles of self-assembly in macromolecules, elucidating ordering principles of polyphilic macromolecules in phospholipid membranes. Seven projects investigate the molecular order as a result of interactions of polyphilic (macro)molecules with surrounding bilayer membranes, able to design and control the embedding of synthetic (macro)molecules into biological membranes.

Further information: www.chemie.uni-halle.de/for\_1145

#### REGISTRATION

Registration will start with the second circular (approx. in May 2016).

#### SOCIAL PROGRAMME

The programme will include a get together and a conference dinner. Further information can be found in the second circular.

#### ► SCIENTIFIC PROGRAMME AND LOCAL ORGANISATION

Prof. Dr. Wolfgang H. Binder

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# INFORMATION AND LOCAL ORGANISATION

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# GENERAL INFORMATION

Gesellschaft Deutscher Chemiker e.V.

(German Chemical Society)

Claudia Birkner - Congress Team

P.O. Box 90 09 40

60444 Frankfurt am Main, Germany

Phone: +49 69 7917-366

Email: tg@gdch.de

Homepage: www.gdch.de/tagungen

Executive director: Professor Dr. Wolfram Koch

Registered charity no: VR 4453 · Registergericht Frankfurt am Main

(date: February 4, 2016)



GESELLSCHAFT DEUTSCHER CHEMIKER

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# Polymers: from Structure to Function

Biennial Meeting of the GDCh-Division of Macromolecular Chemistry

September 11 – 13, 2016 · Halle (Saale)



MARTIN-LUTHER UNIVERSITÄT HALLE-WITTENBERG

www.gdch.de/makro2016



This year's conference focus is "Molecular organisation in polymers: functional self assembly".

New materials require a profound control of molecular order caused by interactions between polymer chains and their environment. As the use of polymers as functional materials often requires the implementation of additional properties not present within the initial monomer, designed molecular interactions are an asset to control structure formation of polymers and polymeric nanocomposites.

This meeting will address the self-assembly of functional polymers in bulk, in solution and at interfaces. The introduction of dynamic ordering principles within supramolecular polymers, biomimetic polymers and interfaces will be discussed, together with a special focus dedicated to graphene/nanocomposites, their interfacial ordering within polymers, as well as their final function.

The conference aims at bringing together experts from both academia and industry to present and discuss novel ideas, applications, latest breakthroughs, developments, opportunities, and challenges of self-assembly principles in polymers.

The scope of the conference covers all aspects of Polymer-Self-**Assembly** with a special focus on the synthesis of polymers, the assembly and ordering of supramolecular polymers, the molecular organisation within (graphene)-nanocomposites, as well as the resulting functional aspects with applications in materials and devices.

# CONFERENCE VENUE

Martin-Luther University Halle-Wittenberg Melanchthonianum Universitätsplatz 06120 Halle (Saale) Germany

#### ORGANISING COMMITTEE

Karlsruhe/DE C. Barner-Kowollik

W. H. Binder Halle (Saale)/DE, Chairman

D. Hinderberger Halle (Saale)/DE J. Kressler Halle (Saale)/DE G. Langstein Leverkusen/DE R. Schönfeld Düsseldorf/DE Jena/DE

U. S. Schubert

#### **TOPICS**

- Self assembly aiming at exploitable function
- Graphene / functional composites
- Structural principles

# LIST OF SPEAKERS

Volker Abetz Hamburg/DE Christopher Barner-Kowollik Karlsruhe/DE Pol Besenius Mainz/DE Hans Börner Berlin/DE Michael Bron Halle (Saale)/DE Stuttgart/DE Michael R. Buchmeiser Helmut Cölfen Konstanz/DE Dresden/DE Xinliang Feng **Andreas Fery** Dresden/DE Mainz/DE **Holger Frey** Jeremiah A. Johnson Cambridge/US LaShanda T. J. Korley Cleveland/US André Laschewsky Potsdam/DE Mainz/DE Klaus Müllen Rolf Mülhaupt Freiburg/DE Andrij Pich Aachen/DE Halle (Saale)/DE Kay Saalwächter Helmut Schlaad Potsdam/DE Ulrich S. Schubert Jena/DE Eindhoven/NL Rint P. Sijbesma Michael Sommer Freiburg/DE **Andrey Turchanin** Jena/DE **Andreas Walther** Aachen/DE Tanja Weil Ulm/DE

**Ingrid Weiss** Saarbrücken/DE

Frederik Wurm Mainz/DF

#### SUBMISSION OF ORAL CONTRIBUTIONS AND POSTERS

Abstracts can be submitted to the topics online at

#### www.gdch.de/makro2016

A sample abstract is to be found on this website. No revisions or corrections will be made by the scientific committee.

After a successful transmission, you will receive a reference code for each submitted abstract and a confirmation after the decision of the scientific committee.

The scientific committee reserves the right to accept or reject papers, and to assign them to oral or poster contribution.

### DEADLINE

Submission of oral contributions March 30, 2016 Submission of posters July 31, 2016

#### SCHOLARSHIPS

It is planned to offer scholarships to a limited number of students, candidates for doctor, diploma, bachelor, or master degree presenting a scientific contribution (main author of an oral contribution or poster). Please send your application to the GDCh until July 31, 2016, latest. The form is to be found at:

# www.gdch.de/veranstaltungen/tagungen/stipendien

# GENERAL MEETING

The general meeting of the GDCh-Division of Macromolecular Chemistry will take place on Monday, September 12, 2016 at 6 pm at the Melanchthonianum.

#### AWARDS

#### Hermann Staudinger award / Raimund Stadler award

Sunday evening (September 11, 2016, 5 pm) will be devoted to a special session including the Staudinger award and Stadler award ceremony (Stadthaus Halle).