

# **12<sup>TH</sup> IPF COLLOQUIUM**

**Multifunctional Polymeric Materials:  
From functional nanofillers to bio-inspired  
materials and smart surfaces**

**November 10, 2016**

**INVITATION AND PROGRAM**



IPF Colloquia have been held since 1994 to highlight fields the institute is engaged in. Presentations of latest results of IPF researchers and of guests from other institutes and industry are discussed and form the basis for verification of the institute's position in the field, for intensified scientific exchange, and new collaborations.

The 12th IPF Colloquium is featuring some areas in which the IPF has established particularly close connections with research groups abroad through appointment of IPF Fellows. Seven IPF fellows have been appointed since 2014: Sergei Egorov (Charlottesville, VA, Virginia, USA), Leonid Ionov (Atlanta, GA, USA), Hossein Khonakdar (Tehran, Iran), Barbara Klajnert-Maculewicz (Lodz, Poland), Matthias Schubert (Lincoln, NE, USA), Philipp Seib (Strathclyde, UK), and De-Yi Wang (Madrid, Spain). Four of them are going to present their work in this colloquium. In addition, nicely fitting talks of external speakers, further partners, and IPF collaborators are integrated into the program. The sequence of lectures is concluded by the presentation of Eduard Arzt (Saarbrücken) who had been invited for a colloquium by the Ortsverband Dresden of the GDCh, and whose talk, after the initially incidental coincidence of dates, will nicely round up the program of the 12th IPF Colloquium on Multifunctional Polymeric Materials: From functional nanofillers to bio-inspired materials and smart surfaces.

A limited number of posters will add some more interesting contributions to display results and inspire discussion.

## PROGRAM

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10:15 Brigitte Voit  
Opening

*Multifunctional polymeric materials through nanofillers and controlling processing*

*Chair: Gert Heinrich*

10:25 **De-Yi Wang** (Madrid, Spain)  
Nano fire retardant for polymers: Where we are and where we go

10:55 **Andreas Leuteritz** (Dresden, Germany)  
UV-light protection of polyolefines using LDH nanofillers

- 11:20 **René Androsch** (Halle, Germany)  
Crystallization of polymers at processing-relevant cooling conditions
- 11:45 **Regine Boldt** (Dresden, Germany)  
Effect of electron-induced reactive processing on morphology and structural properties of HD-PE

12:10 *Lunch break*

*Bio-inspired materials and materials for medical applications*

*Chair: Carsten Werner*

- 13:15 **Philipp Seib** (Strathclyde, United Kingdom)  
Exploring silk as a nanomedicine
- 13:45 **Thomas Scheibel** (Bayreuth, Germany)  
Bio-inspired polymer materials
- 14:15 **Ben Newland** (Dresden, Germany)  
Development of injectable materials for cell and drug delivery
- 14:45 **Yixin Zhang** (Dresden, Germany)  
Screening of non-covalent interaction: From drug screening to biomaterials discovery

15:10 *Break*

*Smart surfaces*

*Chair: Andreas Fery*

- 15:40 **Petra Uhlmann** (Dresden, Germany)  
Control of biointeractions using polymer brushes combined with 3D nanostructures
- 16:10 **Matthias Schubert** (Lincoln, USA)  
Anisotropic optical contrast microscopy and functionalized nanostructured surfaces: A new imaging modality for small molecule detection and cell-surface interactions
- 16:35 **Alla Synytska** (Dresden, Germany)  
Design of bio-inspired functional surfaces using core-shell particles self-assembly
- 17:00 **Eduard Arzt** (Saarbrücken, Germany)  
Bio-inspired surfaces - from science to application
- 17:45 *Break*
- 18:00 *Poster discussion*
- 18:30 *Get-together until 21:30*

## **INFORMATION ON ORGANIZATION**

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### **Venue:**

Leibniz-Institut für Polymerforschung Dresden e. V., Hohe Str. 6, 01069  
Dresden

### **Registration:**

Registration fee: EUR 60 (incl. VAT)

Reduced fee students: EUR 40 (incl. VAT)

Speakers, IPF staff and  
members of GDCh-Ortsverband free of charge

To register please send the enclosed form or an e-mail with the requested  
data to [benzko@ipfdd.de](mailto:benzko@ipfdd.de).

You will get an invoice for payment of the fees.

### **Posters:**

A limited number of posters may be accepted.

Please submit your applications by October 15, 2016 by sending a one-  
page abstract to [benzko@ipfdd.de](mailto:benzko@ipfdd.de).

For guidelines concerning the abstract format please consult the website.

### **Organizing Committee:**

Brigitte Voit      Gert Heinrich      Andreas Fery      Carsten Werner  
(Leibniz Institute of Polymer Research Dresden and  
Technische Universität Dresden)

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Further information on [www.ipfdd.de/coll12](http://www.ipfdd.de/coll12)