

Organization of the institute



Leibniz-Institut
für Polymerforschung
Dresden e.V.

Board

Prof. Dr. Brigitte Voit
Managing Director and
Chief Scientific Officer
+49 351 4658-591

Achim von Dungern
Managing Director and
Chief Financial Officer
+49 351 4658-208

Institute of Macromolecular Chemistry

Prof. Dr. Brigitte Voit +49 351 4658-591
Dept. Polymer Structures
Dept. Polymer Reactions and Blends
Dept. Analysis

Institute of Physical Chemistry and Polymer Physics

Prof. Dr. Manfred Stamm +49 351 4658-224
Dept. Polymer Interfaces
Dept. Polyelectrolytes and Dispersions
Dept. Nanostructured Materials

Group Theory of Polymers

Prof. Dr. Jens-Uwe Sommer +49 351 4558-750

Institute of Polymer Materials

Prof. Dr. Gert Heinrich +49 351 4658-361
Dept. Composite Materials
Dept. Processing
Dept. Reactive Modification
Dept. Mechanics and Structure

Research Division Biofunctional Polymer Materials within the Max Bergmann Center of Biomaterials

Prof. Dr. Carsten Werner +49 351 4658-532
Group Charge and Structure of Interfaces
Group Hemocompatible Interfaces
Group Matrix Engineering

Research Technology

Dr. Michael Wilms +49 351 4658-221

Groups of Administration/Technical Services/Management Assistants

Member of Leibniz-Gemeinschaft
Regular budget financed by federal and land governments
Personnel: 445 (12/2008) including 219 scientists and PhD students

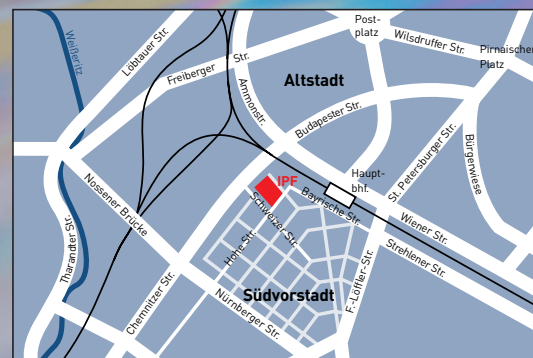
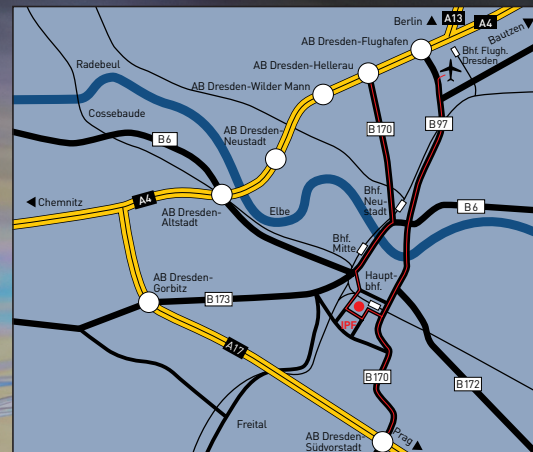
Leibniz-Institut für Polymerforschung Dresden e. V.
(Leibniz Institute of Polymer Research Dresden)

Hohe Str. 6, D-01069 Dresden
P.O. Box 120411, D-01005 Dresden

Phone: +49 351 4658-0
Fax: +49 351 4658-284
Internet: www.ipfdd.de
E-mail: ipfdd@ipfdd.de

Public Relations
Kerstin Wustrack
Phone: +49 351 4658-282
E-mail: wustrack@ipfdd.de

Updated: January 2010



Layout: Dr. Dabow-Grafik+Werbung, Pictures: Jörg Lange-Die Bildermanufaktur

Polymer Research

Fascination. Innovation

The Leibniz Institute of Polymer Research Dresden (IPF) is one of the largest polymer research facilities in Germany. As an institute of the Leibniz Association, the IPF is committed to carrying out application-oriented basic research and receives its base funding in equal parts from the federal and state governments.

The focus of activities at the IPF is directed toward the expansion of basic scientific knowledge for the development of functional polymers and polymer materials with new or improved properties. In addition, emphasis is also put on combining material development with innovative and sustainable production and processing technologies. Advanced materials are absolutely necessary and create a driving force for the development of new technologies and system solutions in medical engineering, modern communication technology, data storage and processing, and transport and energy technology. In their endeavours, the researchers of the IPF work towards understanding the effects of interfaces and the utilization of interface design in material development, in which nanotechnological aspects as well as interfaces to biosystems are of great importance.

The combination of competences in natural and engineering sciences, for which the IPF is known, as well as state-of-the-art technical equipment, allow a holistic approach to materials science research. This extends from synthesis and modification of polymer materials to characterization, theoretical studies, processing, and testing to controlling the properties of polymer materials, biomaterials and composites by selective interface design. In this way, it is possible to deal with problems and requirements on new and improved polymer materials until they are transformed into an industrially utilized product.

Cover picture: Preparation of thin polymer films from solution by means of a spin coater

Multifunctional Polymer Architecture

Prof. Dr. Brigitte Voit voit@ipfdd.de 4658-591

Defined Polymer Architectures: Multifunctional and Biofunctional Polymers

Prof. Dr. Brigitte Voit voit@ipfdd.de 4658-591

Control of Nanostructure and Morphology

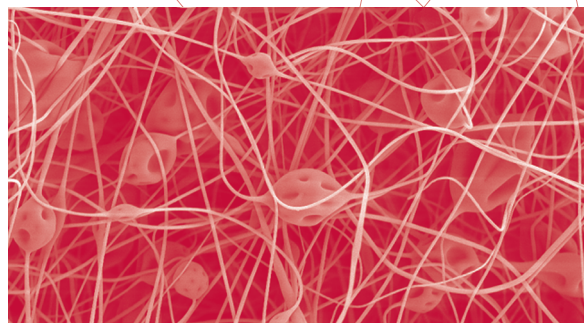
Dr. Doris Pospiech pospiech@ipfdd.de 4658-497

(Poly)Reactions in Melt and During Processing

Dr. Frank Böhme boehme@ipfdd.de 4658-298

Polymer Analysis

Dr. Klaus-J. Eichhorn kjeich@ipfdd.de 4658-256



Electrospun fibres made of phosphorus-containing aromatic polysulphone (Image: T.E. Long et al., Blacksburg, USA)



Numerous methods are available for polymer synthesis

Functional and Nanostructured Polymer Interfaces

Prof. Dr. Manfred Stamm stamm@ipfdd.de 4658-224

Functionalization and Characterization of Interfaces

Dr. Karina Grundke grundke@ipfdd.de 4658-475

Nanostructured Interfaces and Thin Films

Prof. Dr. Manfred Stamm stamm@ipfdd.de 4658-224

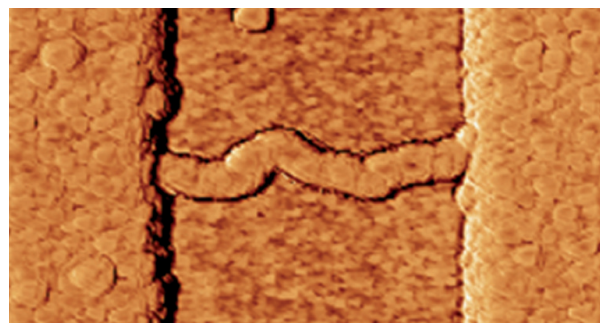
Dr. Petra Uhlmann uhlmannp@ipfdd.de 4658-236

Charged Polymer Systems in Contact with Water

Dr. Ulrich Scheler scheler@ipfdd.de 4658-275

Theory of Polymers at Interfaces

Prof. Dr. Jens-Uwe Sommer sommer@ipfdd.de 4658-750



Electrically conductive nanowire (50 x 100 nm) prepared from a single polymer molecule



Polymeric double layer with two-dimensional gradient structured by UV light for application in self-rolling microtubes

Functional Polymer Materials

Prof. Dr. Gert Heinrich gheinrich@ipfdd.de 4658-361

Reactive Processing

Dr. Dieter Lehmann lehmann@ipfdd.de 4658-392

Nanocomposites and Blends

Dr. Udo Wagenknecht wagenknt@ipfdd.de 4658-433

Elastomers and Physics of Polymer Materials

Prof. Dr. Gert Heinrich gheinrich@ipfdd.de 4658-361

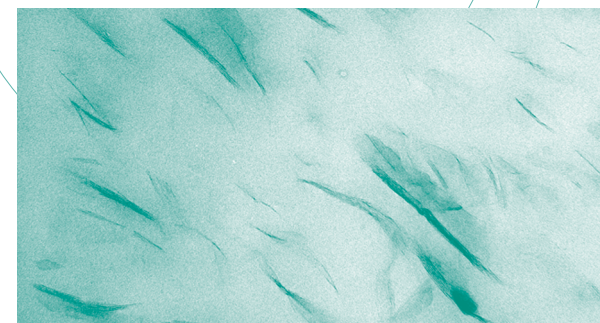
Composite Materials

Dr. Edith Mäder emaeder@ipfdd.de 4658-305

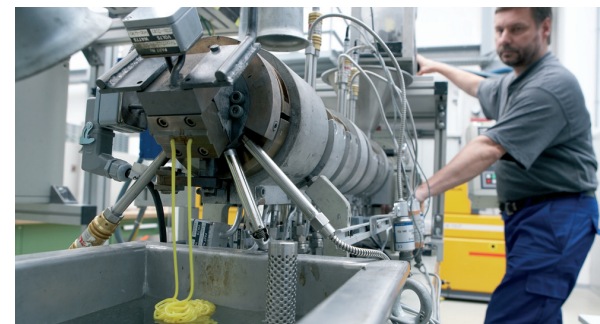
Structure, Mechanics, and Fibre Formation

Dr. Konrad Schneider schneider@ipfdd.de 4658-296

Dr. Harald Brüning bruenig@ipfdd.de 4658-301



Organic modified layered silicate in acrylonitrile-butadiene-rubber matrix (NBR): Some intercalated and mostly exfoliated structures are present (Image: PSM)



Pilot plants for polymer processing allow investigations under industry-relevant conditions: Extrusion of modified thermoplastics

Biomimetic Interfaces and Matrices

Prof. Dr. Carsten Werner werner@ipfdd.de 4658-532

Charge and Structure of Biointerfaces

Dr. Ralf Zimmermann zimmermn@ipfdd.de 4658-258

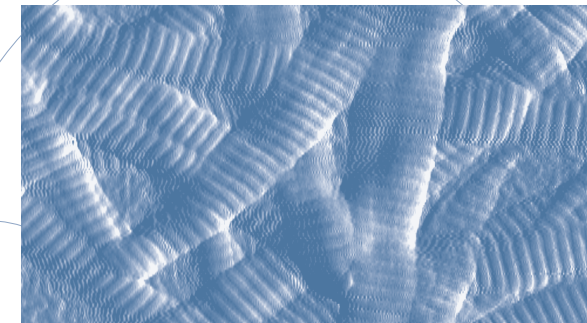
Dr. Hans-Georg Braun braun@ipfdd.de 4658-548

Hemocompatible Interfaces

Dr. Claudia Sperling sperling@ipfdd.de 4658-527

Matrix Engineering

Dr. Tilo Pompe pompe-tilo@ipfdd.de 4658-274



Composite fibrils of collagen I and heparin



Hemocompatibility assessment: Human whole blood is filled into the screening incubation chambers