



# Polymer Research

Fascination, Innovation.

# **Polymer Research**



Leibniz-Institut für Polymerforschung Dresden e.V.

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#### EU-Referentin

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research partner in

**EU** projects

The Leibniz-Institut für Polymerforschung Dresden e.V. (Leibniz Institute of Polymer Research Dresden, IPF). as one of the largest polymer research facilities in Germany, participates in different European research projects and aspires to cooperate as partner and as coordinator with other research institutions, universities, industry, SMEs across Europe. IPF has experienced personnel, a well implemented management structure and intensely working transfer networks to handle EU projects.

As an institute of the Leibniz Association, the IPF is committed to carrying out application-oriented fundamental research and receives its basic funding in equal parts from the federal and state governments.

The approach is holistic, covering synthesis and modification of polymer materials, their characterization and theoretical investigation, up to processing and testing. A special feature of the institute's activities is the close cooperation of scientists and engineers and a broad range of modern instruments and methods are available including pilot plants allowing material and technology development under industry-relevant conditions.

The topics dealt with at the institute are highly futureoriented. They include development of materials, technologies, and systems which are crucial to guarantee the strength of Germany's economy also in future and to ensure both quality of living and sustainability. The polymer materials address innovations for further development in, e. g., medicine, transport and mobility, as well as energy efficiency and advanced communication technologies.





#### P<sub>0</sub>C<sub>0</sub>

#### Carbon Nanotube Confinement Strategies to Develop Novel Polymer Matrix Composites

- large-scale integrating project, NMP 2007
- innovative polymer composites filled with CNTs • products for the aerospace, automotive, building,

windpower, shipbuilding and biomedical industry www.poco-project.org

contact: Prof. Dr. Manfred Stamm mail: stamm@ipfdd.de



#### **EMBROIDERY**

Development of energy efficient/ lightweight composite parts & tooling based on TFP technology/self heating technology

- research for the benefit of SMEs 2010
- design of textile preform for high performance lightweight composite parts www.embroiderv-project.eu

contact: Dipl.-Ing. Axel Spickenheuer mail: spickenheuer@ipfdd.de



#### **ANGIOSCAFF**

**GENIS Lab** 

• support action, SiS 2010

www.genislab-fp7.eu

and three technical partners

contact: Prof. Dr. Brigitte Voit

Angiogenesis-inducing Bioactive & Bioresponsive Scaffolds in Tissue Engineering

- large-scale integrating project, NMP 2007
- functionalized and injectable biomaterials
- bioresorbable, highly porous scaffolds www.angioscaff.eu

contact: Prof. Dr. Carsten Werner mail: werner@ipfdd.de

The Gender in Science and Technology Lab

• idea of gender mainstreaming in science • synergy among six European scientific organisations



### **NEPHROTOOLS**

The potential of human kidney stem/ progenitor cells use in drug discovery and regenerative programme

- Marie Curie Action, ITN 2011
- multidisciplinary training for 15 young scientists www.nephrotools.com

contact: Prof. Dr. Carsten Werner mail: werner@ipfdd.de



#### **ECNP-GROWTH**

Consolidation of the European Centre for Nanostructured Polymers

- •coordination action, NMP 2011
- technological transfer of products & processes www.ecnp.eu.org

contact: Prof. Dr. Brigitte Voit mail: voit@ipfdd.de



#### **NANOFUN-POLY**



Nanostructured and functional polymer-based materials and nanocomposites (NoE)

establishment of European Centre for Nanostructured Polymers (ECNP) in 2006

contact: Prof. Dr. Brigitte Voit mail: voit@ipfdd.de

#### **FLARETPOL**



Development of an innovative, cost-effective technology to produce halogen-free, high-perfomance flame retarded polyolefins (STREP)

contact: Prof. Dr. Udo Wagenknecht mail: wagenknt@ipfdd.de

## **AMBIO**



Advanced nanostructured surfaces for the control of biofouling (IP)

contact: Prof. Dr. Carsten Werner

#### mail: werner@ipfdd.de



Intelligent multireactive textiles integrating nano-filler

based CPC-fibres (IP), incorporating CNTs contact: Dr. Petra Pötschke

mail: poe@ipfdd.de

#### **KidStem**

INTELTEX



Developing a stem cell based therapy to replace nephrons lost through reflux nephropathy (MCA-RTN)

contact: Prof. Dr. Carsten Werner mail: werner@ipfdd.de

#### **MULTIHYBRIDS**



Innovative sensor-based processing technology of nanostructures multifunctional hybrids and composites (IP)

contact: Dr. Dieter Fischer mail: fisch@ipfdd.de

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