

The 3rd International Symposium “React 2007” was held in Dresden from September 23rd to 26th, 2007. It was organised in the context of the Collaborative Research Centre 287 (SFB 287) “Reactive Polymers in Inhomogeneous Systems, in Melts and at Interfaces” funded German Research Foundation (DFG), which is successfully working from 1996 until 2007.

After the success of the 1st Symposium “React 2000”, which was held from July 16th to 19th, 2000, (s. ISBN 3-527-30326-X) and the 2nd Symposium “React 2003”, from September 28th to October 1st, 2003 (s. ISBN 3-527-31043-6) the organisers - the Institute of Macromolecular Chemistry and Textile Chemistry, the Institute of Physical Chemistry and Electrochemistry of the Technische Universität Dresden, and the Leibniz Institute of Polymer Research Dresden - invited again well known scientists in this field from all over the world.

The topic of the symposium is consistent with the topic of the SFB 287, which is focused on the development of new reactive polymeric materials for novel technologies. This interdisciplinary collaborative research centre combines ideally modern polymer material science with engineering aspects.

Lectures given covered a broad range of polymer science starting from the synthesis of new functionalised and reactive polymers, their characterisation, surface and material properties, as well as their application, to new morphologies and supramolecular structures providing again an excellent overview of actual research areas. The contributions were divided into different sections:

- Synthesis and Structures of Reactive
- Polymers
- Reactive Polymers at Interfaces
- Reactive Polymers for Sensors and
- Actuators

The first part contained lectures about synthesis of new reactive polymers and

particles, hyperbranched polymers and dendrimers, defined polymer architectures, and supramolecular structures.

The second part was focussed on interfacial phenomena such as ultrathin layers, surface patterning, adhesion and adsorption, functional membranes, and the reactive polymer engineering and blends, involving modern surface characterisation techniques.

In the third part future applications of reactive polymers in sensors and actuators were collected since a main objective of the SFB 287 is the study and development of materials and devices based upon stimuli responding micro- and nanostructured hydrogels and thin functional polymer layers. Presentations about conductive polymers, smart gels and responsive polymers, biofunctional surfaces and polymers for biomedical applications were given as well.

More than 200 participants joint the “React 2007”, 114 foreign scientists from 28 countries including USA, China, India, Brazil, Canada, Egypt, Japan, Korea, Mexico and Taiwan together with participants from whole Europe, especially from countries being candidates for the EC.

Renowned as well as younger scientists presented 75 oral lectures and about 140 posters and enjoyed vivid and interesting discussions as well as the beauty of Dresden. This significant increase in contributions compared to the “React 2000” shows the interest in and the increasing importance of this research area.

The symposium thus offered an excellent platform for information and discussion and provided the chance to initiate collaborations. The publication of this Macromolecular Symposia volume is meant to address those not having been able to participate but hopefully will become interested in the field, and most importantly to stimulate further progress in the field.

## Acknowledgements

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