

MAKROMOLEKULARES KOLLOQUIUM FREIBURG

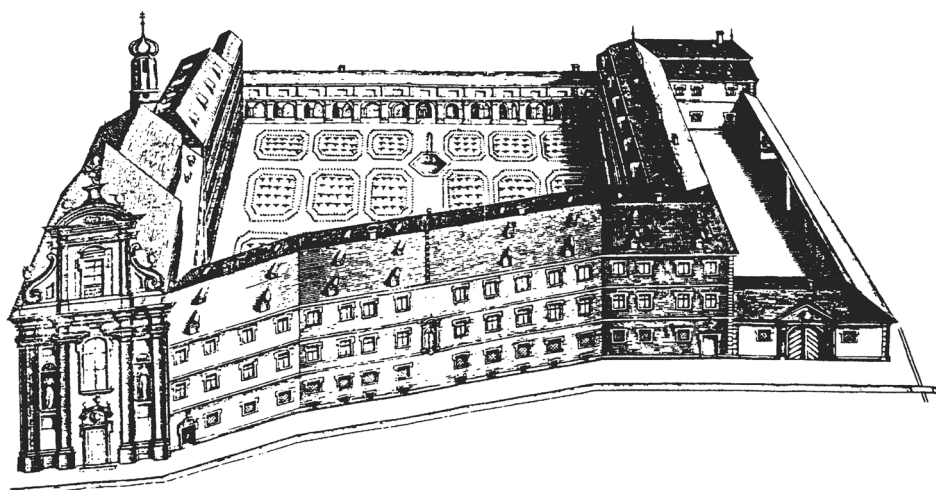
23. – 25. FEBRUAR 2012

AUDIMAX, KOLLEGIENGEBÄUDE II (KG II)

ES LADEN HERZLICH EIN
H.-J. CANTOW R. MÜLHAUPT
G. REITER V.P. SHASTRI

TEMPLVM
SOCIETATIS IESV
Academicum.

COLLEGIUM
Theresianum
FRIEBVRI BRISGOIAE.



Carl. Ios. Porta Scula Friburgi Brisgoiae.



INSTITUT FÜR
MAKROMOLEKULARE CHEMIE
HERMANN-STAUDINGER-HAUS

THURSDAY, FEBRUARY 23rd, 2012

9:00 R. MULHAUPT OPENING

9:05 C.K. OBER, Ithaca/USA
Responsive Polymer Brushes: Tailored Polymer Surfaces for Biomolecular Function

9:35 A.J. RYAN, Sheffield/UK
Flow Induced Crystallization

10:05 INTRODUCTION OF POSTERS

- 1 J. AX, G. Wenz, Saarbrücken
Self-healing Networks by Diels-Alder-Reaction of Cellulose-furoates with Bis-maleimides
- 2 S. EHLERT, S. Mehdizadeh Taheri, D. Barelmann-Kahlbohm, M. Bieligmeyer, S. Förster, Bayreuth
Fully Miscible Polymer Nanocomposites
- 3 B. DITTRICH, B. Schartel, A. Meyer-Plath, S. Petrov, R. Mach, D. Hofmann, F. Tölle, K.-A. Wartig, R. Mülhaupt, Berlin, Freiburg
Born in Fire to Kill Fire
- 4 H. LÜTZEN, A. Hartwig, Bremen
Toughening of Cationically Polymerised Epoxy Resins by a Defined Heterogeneity
- 5 C. KINS, G. Brunklaus, Mainz, Münster
Local Dynamics and Fortification of Epoxy Composites Using Phosphonate Based Fillers
- 6 S. SCHMÜCKER, A. Britze, D. Kuckling, Paderborn
Coil-rod-coil Block Copolymers with Poly(*para*-phenylene) and Stimuli-sensitive Segments Synthesized via Combination of SPC and NMRP
- 7 I. WELTERLICH, H. Zhang, K. Zhang, B. Tieke, Köln
Low-bandgap Polymers Containing Dithioketopyrrolopyrrole and Benzodifuranone Units
- 8 S. KUSTER, T. Geiger, Dübendorf, Zürich/Switzerland
Investigation on Multi Chromophoric Squaraines
- 9 A. WILKE, J. Weber, Potsdam
Hydrogels of Reversible Mesoporosity
- 10 M. SAMADI, J. Schneider, J. Wurth, N. Teske, V.P. Shastri, Freiburg
Adapting Nanoparticles for Cellular Delivery via Modified Polyesters
- 11 A. BAUMGAERTEL, K. Scheubert, A.C. Crecelius, S. Böcker, U.S. Schubert, Jena, Eindhoven/Netherlands
Sequencing Copolymers Inspired by Proteomics: Evaluation of Polymeric Tandem MS Spectra Using Novel Software Approaches
- 12 P. TANNER, V. Balasubramanian, O. Onaca, W. Meier, C.G. Palivan, Basel/Switzerland
Enzymatic Cascades in Polymeric Nanovesicles to Fight Oxidative Stress
- 13 C. FETSCH, A. Grossmann, L. Holz, J.F. Nawroth, R. Luxenhofer, Dresden
Polypeptoids from N-Substituted Glycine N-Carboxyanhydrides: Hydrophilic, Hydrophobic, and Amphiphilic Polymers with Poisson Distribution
- 14 X. Mulet, D.F. Kennedy, C.E. Conn, A. Hawley, C.J. Drummond, H. Ben Youcef, A. SCHNYDER, Augst/Switzerland, Clayton/Australia
Amphiphilic Nanostructured Nanoparticulate Drug Delivery Vehicles: High Throughput Preparation and Characterization Using Automated Platform
- 15 D. Huesmann, A. Duro Castano, A. Birke, R. Zentel, M.J. Vicent, M. BARZ, Mainz, Valencia/Spain
Well Defined Synthetic Polypeptides: Towards Polypeptide Based Nanomedicines
- 16 M.E. WELCH, C.K. Ober, Ithaca/USA
Polymer Brushes for an Antibody Detection Biosensor
- 17 F. ENNEN, D. Appelhans, A. Lederer, J. Hoffmann, H. Komber, B. Voit, Dresden, Frankfurt a.M.
Bioconjugate Model Systems: Non-covalent Attachment of Bioactive (Macro-)Molecules to Glycodendrimers
- 18 D. VASQUEZ, J. Schneider, V. Manzi, V.P. Shastri, Freiburg
Effect of Physical Properties of Colloidal Nanoparticles on Polyelectrolyte Multilayer Assembly
- 19 A. BERTZ, J.-E. Ehlers, S. Wöhl-Bruhn, H. Bunjes, K.-H. Gericke, H. Menzel, Braunschweig
Protein Mobility in a Hydrogel Based Delivery System Analyzed by Fluorescence Methods
- 20 K. JUNKER, P. Walde, Zürich/Switzerland
Vesicle-assisted Enzymatic Polymerization Reactions - Towards Understanding the Mechanism
- 21 J. BULLER, S. Dippel, M. Sütterlin, M. Päch, E. Wischerhoff, A. Laschewsky, Potsdam
Responsive Polymer Hydrogels and the Modulation of their Phase Transition via Molecular Recognition
- 22 U. JONAS, A. Mateescu, A. Brunsen, J. Dostalek, U. Ritz, M. ChatzaniKolaidou, V. Schwartz, L. Choritz
Siegen, Darmstadt, Mainz, Heraklion/Greece, Wien/Austria
Photocrosslinkable Hydrogel Layer Systems for Biosensing and Biomedical Applications
- 23 F.E. GOLLING, M.S. Hoffmann, S.H. Stelzig, M. Klapper, K. Müllen, Mainz
Design and Use of Fluorous Amphiphilic Polymers for Nanoparticle Formation

11:20 COFFEE BREAK

- 12:15 B. Toga, N. Menon, T.P. RUSSELL, Amherst/USA
Capillary Wrinkling: Formation, Boundary Conditions and Topography
- 12:45 T. Janoschka, M.D. Hager, U.S. SCHUBERT, Jena, Eindhoven/Netherlands
Fast and Environmentally Benign Energy Storage: How Organic Radical Batteries Can Replace Pb, NiCd & Co.

13:15 LUNCH BREAK

- 15:00 A. KIRIY, V. Senkovskyy, R. Tkachov, Dresden
Controlled Synthesis of Semiconducting Polymers for Organic Electronics
- 15:30 D. NEHER, Potsdam
Chain Aggregation and Function of Polymer-based Organic Solar Cells
- 16:00 L. Biniek, S. Fall, C. Chochos, N. Leclerc, P. Lévêque, D.V. Anokhin, D.A. Ivanov, T. HEISER, Strasbourg, Mulhouse/France
Tuning the Molecular Structure of Low Band-gap Donor-acceptor Copolymers for an Optimized Photovoltaic Performance

16:30 COFFEE BREAK

- 17:00 E. Kot, B. Oh, M. Chan-Park, A. BISMARCK, London/UK, Singapore
Degradable Water Soluble Polymers
- 17:30 R. Kress, H.-W. SCHMIDT, Bayreuth
Supramolecular Additives for Polyolefins
- 18:00 **Award Ceremony GDCh Staudinger Prize 2012**
GDCh Staudinger Lecture

20:00 MENSA | GESELLIGES BEISAMMENSEIN / DINNER

FRIDAY, FEBRUARY 24th, 2012

9:15 P.H. SEEBERGER, Potsdam, Berlin
Continuous-Flow Synthesis of Polymers

9:45 A. WOLF, S. Grasser, Leverkusen
Dream Production – From Basics to Materials – Copolymerization of CO₂ into Polyether Carbonate-polyols

10:15 INTRODUCTION OF POSTERS

- 1 M. DICKMEIS, H. Cinar, H. Ritter, Düsseldorf
New Starting Material for Polycycloaddition with Diisocyanate (MDI)
- 2 M. BÄHR, M. Fleischer, R. Mülhaupt, Freiburg
New Non-isocyanate Polyurethanes with Improved Stability from Renewable Resources and Carbon Dioxide
- 3 E. BAIRD ANDERSON, D. Ingildeev, F. Hermanutz, M.R. Buchmeiser, Stuttgart, Denkendorf
Dry-Spinning of Poly(*p*-phenylene vinylene) Precursor Fibers
- 4 S. PELZ, T.G. Haenelt, A.M. Schmidt, Köln
Polarons and Bipolaron Coupling in Polythiophenes
- 5 H. MANGOLD, S. Janietz, I.A. Howard, F. Laquai, Mainz
Photophysical and Morphological Characterisation of Novel Polymeric Absorber Materials for Organic Solar Cells
- 6 Y. WANG, J. Mecfel-Marczewski, F.H. Schacher, A.H.E. Müller, W.A. Goedel, Chemnitz, Bayreuth, Trostberg, Jena
Self-incompatible Solvent
- 7 I. BOTIZ, K. Rahimi, N. Osaka, G. Reiter, Freiburg, Tokio/Japan
Decelerating Dewetting by Shining Light on a Thin Polymer Film
- 8 I. VUKOVIC, S. Punzhin, Z. Vukovic, J.T.M de Hosson, G. ten Brinke, K. Loos, Groningen/Netherlands, Belgrad/Serbia
Supramolecular Route to Well-ordered Metal Nanofoams
- 9 L. POOCZA, V.P. Shastri, Freiburg
Effect of Periodic Nanoroughness on Shape and Function in Pre-osteoblasts
- 10 M. HÄRTH, D.W. Schubert, Erlangen
Volume Dependency on the Spreading Dynamics – A Macroscopic Consideration
- 11 M. WIEMANN, J.S. Vesaratchanon, O. Thorwarth, E. Bartsch, N. Willenbacher, Freiburg, Karlsruhe
Polymer-induced Attractions - An Alternative Route to Highly Concentrated, Freely Flowing Colloidal Dispersions
- 12 A. GROTZKY, T. Nauser, A.D. Schlüter, P. Walde, Zürich/Switzerland
Biofunctionalization of a Dendronized Polymer
- 13 F. FÜRSTENBERG, M. Dolgushev, A. Blumen, Freiburg
Theoretical Investigations of Semiflexible Dendrimers
- 14 C. TONHAUSER, A. Natalello, A. Golriz, H. Löwe, H.-J. Butt, H. Frey, Mainz
Chain-end and In-chain Functionalized Macromolecules by Tailor-made Epoxides and Continuous Anionic Polymerization Techniques
- 15 K. POHL, B. Kussmaul, J. Adams, D. Johannsmann, Clausthal-Zellerfeld
Progress of Particle Deformation and Interparticle Cohesion during Drying of Latex Films Probed with Simultaneous Turbidimetry and Förster Resonance Energy Transfer (FRET)
- 16 M. DRACHE, G. Schmidt-Naake, Clausthal-Zellerfeld
Modeling the Product Composition and Molecular Weight Distribution of the RAFT-Polymerization by Monte Carlo Methods
- 17 D. HEINZE, O. Weichold, C. Popescu, K. Peter, T. Mang, M. Möller, Aachen, Jülich
Synthesis and Properties of Low Molecular Weight Poly(Vinyl Esters)
- 18 E. HRSIC, H. Keul, M. Möller, Aachen
Synthesis of Thiol Functionalized Poly(meth)acrylates Using Enzymatic Catalysis and a Subsequent One Pot Reaction Process
- 19 N. SCHMELING, K. Hunger, L. Buschhaus, A. Pfeifer, C. Staudt, K. Kleinermanns, Düsseldorf
Characterization of Maleimide Dimers in Photo-Cross-Linked Copolyimide Films
- 20 R.H. STAFF, M. Gallei, M. Mazurowski, M. Rehahn, K. Landfester, D. Crespy, Mainz, Darmstadt
New Functional Colloidal Morphologies from Block Copolymer Assembly in Droplets
- 21 S. SEIFFERT, D.A. Weitz, Berlin, Cambridge/USA
Smart Microgels Tailored by Droplet Microfluidics
- 22 C. WIDLING, E. Preis, U. Scherf, J. Schmidt, A. Thomas, Wuppertal, Berlin
Novel Synthetic Approaches towards Microporous Polymer Networks
- 23 D. STEINHILBER, F. Paulus, S. Seiffert, R. Haag, Berlin
Biodegradable Polyglycerol Gel Particles on Various Length Scales

11:30 COFFEE BREAK

12:15 D. HINDERBERGER, Mainz
The Marvelous Variety of Macromolecular Structures: New Insights through EPR Spectroscopy

12:45 C. Sawaryn, K. Landfester, A. TADEN, Mainz, Düsseldorf
Tailored Benzoxazine-based Polymers: Morphology Control and Aqueous Systems

13:15 LUNCH BREAK The scholars meet at 13.00 h for lunch in HOTEL OBERKIRCH (Münsterplatz)

15:00 C. BARNER-KOWOLLIK, G. Delaitte, J.P. Blinco, T. Paulöhr, K. Öhlenschläger, M. Glassner, A.S. Goldmann, T. Tischer, M. Dietrich, H. Gliemann, C. Hübner, M. Bruns, M. Bastmeyer, N. Zydziak, Karlsruhe, Eggenstein-Leopoldshafen, Pfingztal
Designing Polymer Hybrid Materials via Modular Synthetic Strategies

15:30 I. Polenz, F.G. Schmidt, S. SPANGE, Chemnitz, Marl
Controlled Radical Polymerization Induced by Imine Bases

16:00 B. BRUGGER, M. Roessing, M. Lobert, F. Schubert, S. Giessler-Blank, Essen
Direct Synthesis of Silane-functionalized Polymers: A Versatile Toolkit for a New Class of Moisture Curing Adhesives and Sealants

16:30 COFFEE BREAK

17:00 Awarding of poster prizes (donated by Wiley VCH)

17:10 T. WEIL, A. Pfisterer, Y. Wu, Ulm
Giant Polypeptide Copolymers for Biomedical Applications

17:40 S. AGARWAL, J. Seuring, Marburg
Concealed Qualities - Polymers with an Upper Critical Solution Temperature in Water and Biological Fluids

18:10 N. BRUNS, S.J. Sigg, T.B. Silva, F. Seidi, K. Renggli, H. Charan, G. Kali, Basel/Switzerland
ATRPases: Heme Proteins as Catalysts for Atom Transfer Radical Polymerization

18:40 M. Allmeroth, M. Barz, M. Hemmelmann, L. Nuhn, K. Tappertzhofen, R. ZENTEL, Mainz
Can Well-defined Polymer Architectures Improve Nanomedicine?

SATURDAY, FEBRUARY 25th, 2012

- 9:00 T. SPECK, G. Bauer, F. Flues, M. Rampf, R. Luchsinger, M. v.Tapawicza, A. Nellesen, O. Speck, Freiburg, Oberhausen, Dübendorf/Switzerland
Self-repairing Materials - Learning from Nature's Solutions
- 9:30 W.H. BINDER, M. Schunack, M. Gragert, D. Döhler, P. Michael, Halle
Self-Healing Materials by Shear Induced Crosslinking of Liquid Polymers
- 10:00 D.M. OPRIS, S. Grimm, F. Nüesch, M. Molberg, G. Kovacs, C. Racles, M. Cazacu, J. Quinsaat, H. Hofmann,
Dübendorf, Lausanne/Switzerland, Iasi/Romania
Self-reparable Dielectric Elastomer Actuators
- 10:30 COFFEE BREAK**
- 11:00 G.P. HELLMANN, P. Spahn, D. Snoswell, J. Baumberg, T. Still, G. Fytas, Darmstadt, Cambridge/GB, Philadelphia/USA, Heraklion/Greece
Polymer Opals: Shear Flow, Tensile Strain, Photonics, Phononics and Retro Reflection
- 11:30 A. KÜNKEL, R. Loos, C. Sinkel, Ludwigshafen
Symbiosis of Chemistry and Biology: BASF's Biodegradable and Renewable Polymers
- 12:00 V.P. SHASTRI, A. Forget, L. Poozca, Freiburg
Understanding the Role of the Materials Space in Defining Cell Fate and Function
- 12:30 G. REITER CLOSING REMARKS

Registration is open from November 7th, 2011 until February 13th, 2012 on <http://portal.uni-freiburg.de/makro-chemie/kolloquium>

A later registration is possible at the conference desk for an additional fee.

Hotel reservation at a reduced rate can be made by HolidayInsider AG until January 23rd, <http://portal.uni-freiburg.de/makro-chemie/kolloquium/hotelbuchung>

Regular registration fee until January 31st: 250,- €, from February 1st onwards: 270,- €.

Reduced registration fee for students until January 31st: 50,- €, from February 1st onwards: 70,- €.

Included are the Conference Dinner on Thursday, refreshments during the coffee breaks, and the Special Issue of Macromolecular Journals containing the abstracts.

Guests are welcome at the Dinner. Please indicate by checking the field on your registration form, and obtain the Dinner ticket for the guest (50,- €) at the conference desk.

Please make payment of your registration fee into the account of:

Förderungsgemeinschaft des Instituts für Makromolekulare Chemie, Konto Nr. 242 636, BLZ 680 700 24, Deutsche Bank AG, Freiburg
BIC: DEUTDE33HAN, IBAN: DE65 6807 0024 0024 2636 00

Cancellations with full refund of the conference fee are only accepted before February 15th, 2012.

The conference badge, receipt of payment, and Dinner ticket can be collected at the conference desk, from 8:00 a.m. (mobile 0176 29431523)

THE NEXT FREIBURG MAKROMOLEKULARES KOLLOQUIUM WILL TAKE PLACE ON FEBRUARY 21st - 23rd, 2013

