8th German-Korean Polymer Symposium

„Polymer Research at the Interface to Life Science and Technology“

jointly with the

IRTG meeting on "Self-Organized Materials for Optoelectronics"

August 26 – 29, 2013
University of Hamburg

- **Message from the Symposium Chairs**

It is our pleasure to welcome you to the 8th German-Korean Polymer Symposium (GKPS2013) „Polymer Research at the Interface to Life Science and Technology“ jointly with the IRTG meeting on "Self-Organized Materials for Optoelectronics", organized at University of Hamburg.

The organizing committee is particular acknowledging those coming from abroad. This symposium has meanwhile a long tradition among polymer scientists between Germany and Korea. Past meetings were held alternately in Germany (Mainz, Dresden und Freiburg) and Korea (Seoul, Pohang, Daejeon und Busan). Many long-lasting and fruitful collaborations have been initiated during the past symposia due to the informal nature of the event. The symposium has always attracted active participation from academia and industry, with scientists of all ages and experience. We expect the 8th German-Korean Polymer Symposium to continue with this tradition and bring polymer scientists from both countries together. As a novelty, we have additionally invited selected and renowned international scientist to expand the inspiration in a global polymer community. This joint symposium is mainly supported by the German Research Foundation (DFG), which we very much acknowledge. Additionally, we are indebted to all other sponsors that made this symposium possible.

During this symposium leading scientists from both academics and industry will share their experience and views on recent developments of polymers and polymer materials in the interdisciplinary areas of biology, medicine and nanotechnology. I would also like to take this opportunity to highlight our poster session. We assigned a full evening to the poster session during which meal and drinks will be provided in order to stimulate scientific exchange. Additionally, the best posters will be awarded with a poster prize.

We are convinced that you find this symposium both interesting and stimulating. Please, enjoy meeting up with old friends and making new contacts. Further, we sincerely hope that you experience the hospitality of University of Hamburg and the city of Hamburg!

Thank you and welcome to the 8th German-Korean Polymer Symposium!

August 2013,

Chairs
Patrick Theato, Jürgen Rühe, Rudolf Zentel, Kwang-Sup Lee, Kookheon Char

- **Message from the Local Chairs**

On behalf of the University of Hamburg we warmly welcome you to the Institute for Technical and Macromolecular Chemistry at the department of chemistry. We are honored and delighted to host the 8th German-Korean Polymer Symposium in 2013 and we have tried our outmost to make your stay comfortable, fruitful and successful. The Symposium Chairs have compiled an outstanding program and we are convinced that you will enjoy the selection of oral presentations as well as the exciting large number of posters.

At the Institute for Technical and Macromolecular Chemistry we are proud to also give you an insight to our research activities. The various researchers actively working here are focusing on various aspects of polymer science, ranging from synthesis and characterization of polymers to polymerization technologies. Polymer materials that are produced by catalysis are part of our research interests. This includes polyolefins, polyurethanes, polyesters, polycarbonates or polyethers. Additionally, modern polymerization techniques are actively employed in the synthesis of functional polymers, smart polymers, hybrid polymers or polymer surfaces. But we have more to offer. Technical Chemistry is studying two main directions: (1) Pyrolysis and recycling of plastic waste, old tyres, oil shales, etc.; (2) process engineering and optimization of polyreactions, as well as (3) polymer processing. Feel free to get in touch with our scientists during your visit!

But now, please enjoy the symposium in all its facets. We provide the stage for the scientific exchange and we are grateful to all participants that fill this symposium with the scientific and excellent content. Enjoy, and get inspired!

Local Chairs,
Patrick Theato, Gerrit Luinstra, Volker Abetz

Symposium Committees

- Symposium Chairs
  Patrick Theato (*Universität Hamburg*)
  Jürgen Rühe (*Universität Freiburg*)
  Rudolf Zentel (*Universität Mainz*)
  Kwang-Sup Lee (*Hannam University*)
  Kookheon Char (*Seoul National University*)

- Local Chairs
  Patrick Theato
  Gerrit A. Luinstra
  Volker Abetz

- Symposium Secretariat
  Mrs. Cornelia Zhu
  Mrs. Christina Khenkhar

- Symposium Website
  http://www.chemie.uni-hamburg.de/gkps2013/

- Sponsors
  - German Research Foundation (DFG)
  - Wiley-VCH
  - Springer
  - RSC – Polymer Chemistry
  - Goodyear
  - Bruno Bock Chemische Fabrik GmbH & Co. KG

General Information

Badges and Tickets
Symposium participants are required to wear their name badges throughout the symposium in order to gain entry to the lecture hall, poster session and social activities. A ticket for the conference dinner has been given with your badge. Please ensure you have your ticket with you when attending the conference dinner.

Coffee Breaks
Coffee Breaks are held from Monday to Thursday in the lobby area of the Institute for Technical and Macromolecular Chemistry, University of Hamburg, Bundesstrasse 45. Coffee breaks are schedule from 10:30 – 11:00 and 16:00 – 16:30.

Communication Devices
All cellular phones and smart phones must be turned off before entering the lecture hall.

Duplication and Recording
Photography, audio taping, video recording, digital taping or any other form of duplication is strictly prohibited in the lecture hall and poster session areas.

Internet Access
Wireless internet access is available at the symposium site. You have been given login IDs with your symposium registration package.

Language
Official language of the symposium is English. No translation or interpretation is provided.

No Smoking Policy
The Institute for Technical and Macromolecular Chemistry is a smoke-free environment. It is strictly forbidden to smoke in any of the meeting rooms, corridors, toilets, or exhibition areas. Smoking areas are available outside of the building.

Registration
The symposiums registration desk is located in the foyer of the Institute for Technical and Macromolecular Chemistry and will open on the following days and times:
Monday, August 26: 8:30 – 12:30 / 14:00 – 19:00
Tuesday, August 27: 8:30 – 12:30
Wednesday, August 28: 8:30 – 11:00
Thursday, August 29: 8:30 – 11:00

Speakers
Speakers should set up their presentation in the break before the session they are speaking. You can either set up your own laptop or upload your presentation as a PowerPoint PPT to the symposiums laptop.

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Program

Monday, 26.08.2013

9:00 – 10:30	Registration
10:30 – 11:00	Welcoming address & opening
11:00 – 12:00	tutorial lecture TL1: **Walter Kaminsky** (UHH) *Challenge of Metallocene/Methylaluminoxane Catalysis for Olefin Polymerization*
12:00 – 14:00	LUNCH BREAK
14:00 – 14:30	OL1: **Katharina Landfester** (MPIP Mainz) *Triplet-Triplet Annihilation Upconversion in Colloidal Systems: From Devices to Applications in Living Cells*
14:30 – 15:00	OL2: **Aránzazu del Campo** (MPIP Mainz) *Light-based approaches for modulating the properties of the cellular microenvironment*
15:00 – 15:30	OL3: **Hans G. Börner** (Humboldt Universität zu Berlin) *Specifically Interacting Polymers*
15:30 – 16:00	OL4: **Hyun-jong Paik** (Pusan National University) *(Nitrilotriacetic acid)-End-Functionalized Polymers and Their Applications*
16:00 – 16:30	COFFEE BREAK
16:30 – 17:00	OL5: **Millicent O. Sullivan** (University of Delaware) *Histone-Mimetic Nanostructures for Reversible DNA Packaging, Enhanced Nuclear Delivery, and Efficient Gene Transfer*
17:00 – 17:30	OL6: **Tanja Weil** (Ulm University) *Synthesis of Macromolecular Biohybrid Architectures for Biomedical Applications: Enzyme Switches, Dendronized Proteins and Albumin Mimics*
17:30 – 18:00	OL7: **Brigitte Voit** (IPF Dresden) *Responsive polymersomes and nanocapsules as robust and tunable carrier systems*
18:00 – 18:30	OL8: **Sebastian Koltzenburg** (BASF) *Solubilization of Poorly Soluble Drugs: New Approaches for the Delivery of Actives*

Tuesday, 27.08.2013

9:00 – 9:30	OL9: **Jan Genzer** (NC State University, USA) *Formation & Applications of Functional Polymeric Coatings on Synthetic Fibers*
9:30 – 10:00	OL10: **Markus Biesalski** (TU Darmstadt) *Tailor-Made Paper Substrates for Microfluidic Applications*
10:00 – 10:30	OL11: **Robert Luxenhofer** (Würzburg University) *Dispers or not Dispers: that is the question!*
10:30 – 11:00	COFFEE BREAK
11:00 – 11:30	OL12: **Peter H. Seeberger** (MPIGK Potsdam) *Continuous Flow Synthesis of Polymers*
11:30 – 12:00	OL13: **Holger Frey** (Universität Mainz) *Poly(ethylene glycol) and Poly(propylene glycol): From New Synthetic Concepts to Life Science*
12:00 – 12:30	OL14: **Soo Young Park** (Seoul National University) *Highly Luminescent and Stimuli-Responsive Supramolecular Materials System*
12:30 – 14:00	LUNCH BREAK
14:00 – 19:00	excursion and/or social activities

Wednesday, 28.08.2013

9:00 – 9:30	OL15: **Rudolf Zentel** (Universität Mainz) *Organic/Inorganic Hybrids for Optoelectronic Applications*
9:30 – 10:00	OL16: **Kookheon Char** (Seoul National University) *Materials Engineering and Its Utilization in Quantum Dot Light Emitting Diodes for Optimized Device Performance*
10:00 – 10:30	OL17: **Kwang-Sup Lee** (Hannam University) *2D and 3D Patterned Organic-Inorganic Hybrid Systems for Photonic Applications*
10:30 – 11:00	COFFEE BREAK
11:00 – 11:30	OL18: **Byeong-Hyeok Sohn** (Seoul National University) *Engineering of Near-Field Interactions of Fluorophores and Nanoparticles by Nanoscale Diblock Copolymer Micelles*
11:30 – 12:00	OL19: **Thomas Basché** (Universität Mainz) *Single Molecule Spectroscopy of Conjugated Polymers at Cryogenic Temperatures*
12:00 – 12:30	OL20: **Changhee Lee** (Seoul National University) *Improved Electrical Performance and Operational Stability through Interface Engineering for Organic Thin Film Transistors*

12:30 – 14:00	LUNCH BREAK
14:00 – 14:30	OL21: **Cheol-Hee Ahn** (Seoul National University) *Molecular Imaging Probes Based on Hybrid Nanoparticles*
14:30 – 15:00	OL22: **Sehoon Kim** (Korea Institute of Science and Technology) *Multimolecule-Integrated Biophotonic Nanoparticles for Disease Imaging*
15:00 – 15:30	OL23: **Dong Ha Kim** (Ewha Womans University) *Plasmonic Hybrid Nanostructures for Target-specific Applications*
15:30 – 16:00	OL24: **Ralf Weberskirch** (TU Dortmund) *Synthesis and Characterization of Biohybrid Polymers to Mimic the Natural Stem Cell Niche*
16:00 – 16:30	COFFEE BREAK
16:30 – 17:00	OL25: **Thomas Speck** (University of Freiburg) *Polymer-based Biomimetic Structures and Materials*
17:00 – 17:30	OL26: **Yong Woo Cho** (Hanyang University) *Human Fat Tissue: A Valuable Resource of Polymeric Biomaterials for Drug Delivery and Tissue Engineering*
17:30 – 18:00	OL27: **André Laschewsky** (University of Potsdam) *Responsive Hydrogels as Scaffolds for Biosensing, and their Modulation by Molecular Recognition*
18:00 – 18:30	OL28: **Sung Yun Yang** (Chungnam National University) *Biological Composites Prepared with and Various Polymers and Virus for Cellular Study*
19:00 – 22:00	POSTER SESSION & BBQ & DRINKS

Thursday, 29.08.2013

9:00 – 9:30	OL29: **Jürgen Rühe** (University of Freiburg) *Tailormade Surfaces for Microsystems and Biosurface Engineering: From DNA-chips to Artificial Cilia*
9:30 – 10:00	OL30: **Alexander Böker** (RWTH Aachen) *Directing the Self-Assembly of Hybrid (Bio)Nanoparticles*
10:00 – 10:30	OL31: **Hans-Jürgen Butt** (MPIP Mainz) *Solutions on Superamphiphobic Layers*
10:30 – 11:00	COFFEE BREAK
11:00 – 11:30	OL32: **Izumi Ichinose** (NIMS, Japan) *Polymers and Membranes for Natural Resources Development*
11:30 – 12:00	OL33: **Volker Abetz** (University of Hamburg) *Isoporous Block Copolymer Membranes*
12:00 – 12:30	OL34: **Jin Kon Kim** (Pohang University of Science and Technology) *New Functional Nanomaterials Based on Block Copolymer Self-Assembly*

12:30 – 14:00	LUNCH BREAK
14:00 – 14:30	OL35: **Tae-Lim Choi** (Seoul National University) *Controlling the nanostructures of polymers by olefin metathesis catalysis*
14:30 – 15:00	OL36: **Andreas Greiner** (University of Bayreuth) *Chameleon Nonwovens by Green Electrospinning*
15:00 – 15:30	OL37: **Yang Ho Na** (Hannam University) *Double Network Hydrogels with High Mechanical Strength and their Application*
15:30 – 16:00	OL38: **Patrick Theato** (University of Hamburg) *New Developments in Post-Polymerization Modification*
16:00 – 16:30	COFFEE BREAK
16:30 – 17:00	OL39: **Kurt Kremer** (MPIP Mainz) *Topological Constraints Matter: From Polymer Rheology to Chromosome Territories*
17:00 – 17:30	OL40: **Jin-Kyun Lee** (Inha University) *Highly Fluorinated Functional Materials for Integrating Electronics and Biology*
17:30 – 18:00	OL41: **Gerrit A. Luinstra** (University of Hamburg) *Poly(propylene carbonates): Synthesis and Applications*
18:00 – 18:15	CLOSING REMARKS
19:00 – 23:00	CONFERENCE DINNER AT "RICKMER RICKMERS"

Friday, 30.08.2013

9:00 – 22:00	optional excursion to Berlin, organized by IRTG includes visit to selected companies

Saturday, 31.08.2013

9:00 – 22:00	optional excursion to Berlin, organized by IRTG includes student presentations

List of Posters -- Poster session will take place Wednesday 7pm to 10pm

P1: **K. Eggers**, D. Szopinski, G. A. Luinstra
(Universität Hamburg)
STIMULI-RESPONSIVE HYDROGELS BASED ON RENEWABLE MATERIALS

P2: **R. Kakuchi**
(Universität Hamburg)
THREE COMPONENT REACTIONS AS NEXT GENERATION SYNTHETIC TOOLBOX FOR POLYMER CHEMISTRY

P3: **C. Secker**, J. W. Robinson, H. Schlaad
(Max Planck Institute of Colloids and Interfaces)
THERMORESPONSIVE (SMART) POLYPEPTOIDS

P4: **F. Moldenauer**, R. Kakuchi, P. Theato
(Universität Hamburg)
MULTICOMPONENT REACTIONS FOR THE PRECISE POSITIONING OF FUNCTIONAL GROUPS

P5: **B. Oschmann**, D. Bresser, N. Tahir, W. Tremel, S. Passerini, R. Zentel
(Johannes Gutenberg-Universität Mainz)
GRAPHITIC COATED NANOPARTICLES FOR THE APPLICATION AS ELECTRODE MATERIALS IN LITHIUM-ION BATTERIES

P6: **H. Jo**, P. Theato
(Universität Hamburg)
REVERSIBLE MORPHOLOGY CHANGES OF SELF-ASSEMBLED POLYMERIC BLOCK-LIKE NANORODS

P7: **A. Fokina**, R. Zentel
(Johannes Gutenberg-Universität Mainz)
POLYMERS WITH LOW LYING HOMO FOR QD-BLOCK COPOLYMER HYBRIDS

P8: **A. Florian**, Y. Lee, P. Theato
(Universität Hamburg)
SULFUR-CONTAINING POLYMERS – "YELLOW IS THE NEW GREEN"

P9: **F. Liaqat**, M. N. Tahir, M. Kappl, H. Butt, W. Tremel
(Johannes Gutenberg-Universität Mainz)
BIO-INSPIRED BRAGG STACKS AS HARD AND ADHESIVE COATINGS

P10: **L. He,** P. Theato
(Universität Hamburg)
SYNTHESIS OF PHOTOCLEAVABLE POLYMERS FOR TRACELESS RELEASE OF BIOACTIVE MOIETIES AND SELECTIVE BIOSEPARATION

P11: **N. Hu**, S. Stöttinger, T. Basché
(Johannes Gutenberg-Universität Mainz)
PREPARATION AND SPECTROSCOPY OF QUANTUM DOT DIMERS

P12: **D. Seuyep**, A. Luinstra, P.Théato
(Universität Hamburg)
SYNTHESIS OF NOVEL REACTIVE ESTER VINYLCYCLOPROPANES DERIVATIVES: TOWARDS STIMULI-RESPONSIVE POLYMERS AND POLYMER SOAPS

P13: **A. Breivogel**, S. Wooh, M. Park, D. Lee, J. Dietrich, C. Lee, K. Char, K. Heinze
(Johannes Gutenberg-Universität Mainz)
NOVEL RUTHENIUM(II) CHROMOPHORES FOR APPLICATIONS IN DYE SENSITIZED SOLAR CELLS AND LIGHT EMITTING DEVICES

P14: **M. Noack**, J. G. Torres-Rendon, P. Das, A. Walther
(DWI at RWTH Aachen University)
DIFFERENCES BETWEEN NACRE-MIMETIC BASED ON GRAPHENE OXIDE WITH CARBOXYMETHYL CELLULOSE OR ANIONIC CELLULOSE NANOFIBRILS

P15: **S. Kim**, J. Kim, and B. Sohn
(Seoul National University)
NANOPATTERNING OF REDUCED GRAPHENE OXIDE FILMS BY ARRAYS OF NANOPARTICLES FABRICATED BY DIBLOCK COPOLYMER MICELLES

P16: **B. Nörnberg**, A. Rahlf , C. Spottog, N. Bornholdt, G. A. Luinstra
(Universität Hamburg)
SEMI-BATCH COPOLYMERIZATION OF PROPYLENE OXIDE (PO) AND CO_2

P17: **J. Lee**, B. Sohn (Seoul National University)
FLUOROPHORE FUNCTIONALIZATION OF NANOSTRUCTURES OF DIBLOCK COPOLYMERS SYNTHESIZED BY RAFT POLYMERIZATION

P18: **R. Tiwari**, A. Walther
(DWI at RWTH Aachen University)
MONODISPERSE FUNCTIONAL MICROGELS BY CLICK-TYPE POST-TRANSFORMATION OF LATEX PARTICLES

P19: **K. O. Kim**, J. Kim, T. –L. Choi
(Seoul National University)
THE LIVING RING-OPENING METATHESIS POLYMERIZATION OF Tricyclo [4.2.2.0]deca-3,9-diene USING 2^{ND} GENERATION GRUBBS AND HOVEYDA-GRUBBS CATALYSTS

P20: **F. Harpen**, B. Eling, G. Luinstra
(Universität Hamburg)
THERMOPLASTIC POLYURETHANES

P21: **M. Rendl**, T. Brandstetter, J. Rühe
(University of Freiburg)
GUIDING OF LIQUIDS VIA PATTERNED SURFACE COATINGS TO FACILITATE SOLID-PHASE EXTRACTION IN TWO-PHASE FLOW

P22: **X. Wu**, G. A. Luinstra
(Universität Hamburg)
HYDROXYL FUNCTIONAL Poly(propylene carbonate) FROM AN o-Nitrobenzyl epoxide

P23: **K. Niederer**, H. Frey, M. Gabriel
(Johannes Gutenberg-Universität Mainz)
SURFACE MODIFICATION OF PTFE: FROM BIOLOGICALLY ACTIVE PEPTIDES TO MULTIFUNCTIONAL Poly(ethylene glycol)s

P24: **A. Rosehr**, S. Scheel, A. Poeppel, G. A. Luinstra
(Universität Hamburg)
POLYOLEFIN COMPOSITE SYNTHESIS: FROM SMALL SCALE TO Kg MATERIAL

P25: **E. Lee**, K. Kremer, Y. Jung
(Seoul National University)
STRUCTURAL PROPERTIES OF ADSORBED CIRCULAR POLYMER MELTS CONFINED IN THE THIN FILM

P26: **C. Scheibelein**, O. Prucker, J. Rühe
(University of Freiburg)
ENTROPIC DEATH OF SURFACE-ATTACHED POLYELECTROLYTE BRUSHES

P27: **H. Shim**, S. Kim, J. Kim, T. Kim, C. Lee, J. Kim
(Seoul National University)
AN EFFICIENT INTERCONNECTION UNIT COMPOSED OF ELECTRON-TRANSPORTING LAYER/METAL/P-DOPED HOLE-TRANSPORTING LAYER FOR TANDEM ORGANIC PHOTOVOLTAICS

P28: **S. Jo**, Y. Shim, Y. Jung
(Seoul National University)
INTERFACIAL STRUCTURE AND DIFFERENTIAL CAPACITANCE OF Alkylimidazolium Tetrafluoroborate CONFINED BETWEEN THE GRAPHENE ELECTRODES: A MOLECULAR DYNAMICS SIMULATION STUDY

P29: **T. Kim**, H. Shim, M. Choi, J. Kim
(Seoul National University)
HETEROEPITAXIAL GROWTH OF LEAD-PHTHALOCYANINE AND C_{70} USING CuBr AS A TEMPLATING LAYER FOR THE EFFICIENCY ENHANCEMENT OF ORGANIC PHOTOVOLTAIC CELLS

P30: **M. Radjabian**, J. Koll, K. Buhr, C. Abetz, A. Schröder, U.A. Handge, V. Abetz
(Helmholtz-Zentrum Geesthacht)
HOLLOW FIBRE SPINNING OF PS-b-P4VP DIBLOCK COPOLYMERS FOR MEMBRANE APPLICATIONS

P31: **Y. Lim**, M. Cha, J. Chang
(Seoul National University)
SYNTHESIS OF HYPERBRANCHED POLYPHENYLENE-BASED MICROPOROUS POLYMERS

P32: **D. Chercka**, S. J. Yoo, J. J. Kim, M. Baumgarten, K. Müllen
(Max-Plank-Institut für Polymerforschung)
PYRENE-DERIVATIVES FOR HIGH EFFICIENT OLED-DEVICES

P33: **I. Bae**, I. Lee, S. Byun, B. M. Kim, T. Choi
(Seoul National University)
MAGNETICALLY RECYCLABLE Pd-Fe_3O_4 HETERODIMER NANOCRYSTALS FOR THE SYNTHESIS OF CONJUGATED POLYMERS VIA SUZUKI CROSS-COUPLING REACTION

P34: **S. A. Asiaee Sahneh**, M. Henze, O. Prucker , J. Rühe
(University of Freiburg)
SURFACE-ATTACHED THERMORESPONSIVE HYDROGEL FILMS FOR BIOMEDICAL APPLICATIONS

P35: **Y. Zhang**, Y. Kondo, D. Suemasa, T. Isono, K. Tajima, T. Kakuchi, T. Satoh
(Hokkaido University)
SYNTHESIS OF AB_n-TYPE MIKTOARM STAR POLYMERS BY COMBINATION OF CONTROLLED RADICAL POLYMERIZATION AND CLICK REACTION

P36: **J. Park**, R. Kim, J. Park, M. Choi, S. Kim, K. Lee
(Hannam University)
SYNTHESIS AND PERFORMANCE OF WATER-SOLUBLE AND HIGH RESOLUTION PERYLENE DIIMIDE DERIVATIVES FOR FLUORESCENCE IMAGING

P37: **J. Lee**, D. Kim
(Ewha Womans University)
THERMO-INDUCED PLASMONIC COUPLING IN Au/Poly(N-isopropylacrylamide) NANOSTRUCTURES MONITORED BY SPR SPECTROSCOPY

P38: **S. Jeon**, S. Park, K. Lee, Y. Han, Y. Lee, J. Joo
(Hannam University)
HYBRID QUANTUM DOT NANOPARTICLES WITH π-CONJUGATED MOLECULES: NANOSCALE LUMINESCENCE AND PHOTORESPONSIVE MOLECULAR ELECTRONICS

P39: **R. Dimitrova**, Yu. Avlasevich, D.Busko, K. Landfester, S. Baluschev
(Sofia University)
ALL-OPTICAL TEMPERATURE SENSING IN WATER ENVIRONMENT: NON-IONIC SURFACTANTS LOADED WITH ANNIHILATION UPCONVERSION DYES WITH CONTROLLABLE HYDROPHOBICITY

P40: **J. Kim**, M. Thambidurai, D. Lee, H. Song, J. Song, Y. Ko, H. Syn, C. Lee
(Seoul National University)
ENHANCED PHOTOVOLTAIC PERFORMANCE OF INVERTED POLYMER SOLAR CELLS WITH Al-DOPED ZINC OXIDE INTERFACIAL LAYER

P41: **K. Katta**, Ch. Wohnhaas, R. Munoz-Espi, S. Baluschev, K. Landfester
(Max Planck Institute for Polymer Research)
BROADENING OF THE EXCITATION SPECTRUM FOR PHOTO - CATALYTIC HYDROGEN GENERATION BY TRIPLET-TRIPLET ANNIHILATION PHOTON ENERGY UPCONVERSION

P42: **M. Park**, J. Lim, S. Lee, K. Char, C. Lee
(Seoul National University)
DEMONSTRATION OF Cd-FREE QUANTUM DOT LIGHT-EMITTING DIODES WITH INVERTED STRUCTURE

P43: **H. Huesmann**, D. Schneider, G. Fytas, H. Butt, W. Tremel
(Johannes Gutenberg-Universität Mainz)
FROM TUNABLE HYBRID BRAGG STACKS TO 1D PHOXONIC CRYSTALS

P44: **N. A. Korf**, C. Hassler, O. Prucker, T. Stieglitz, J. Rühe
(University of Freiburg)
HYDROGELS AS COATING MATERIALS FOR FLEXIBLE INTRACORTICAL MICROELECTRODES

P45: **F. Mathias**, R. Zentel
(Johannes Gutenberg-Universität Mainz)
FUNCTIONALIZATION OF TiO_2-NANOPARTICLES WITH SEMICONDUCTING POLYMERS CONTAINING A PHOTOCLEAVABLE ANCHOR-GROUP AND SEPARATION VIA IRRADIATION AFTERWARDS

P46: **J. R. Ochsmann**, T. Nguyen, M. Turbiez, F. Laquai
(Max Planck Institute for Polymer Research)
LOW-BANDGAP DPP-TYPE ELECTRON DONOR MATERIALS FOR OPVs – RELATION BETWEEN DEVICE PERFORMANCE AND PHOTOPHYSICAL PROPERTIES

P47: **Y. Lee**, J. Lim, S. Hanif, P. Theato, J. Pyun, K. Char (Seoul National University)
ATRP OF Pentafluorophenyl Methacrylate (PFPMA) FOR COLOR-TUNABLE FLUORESCENT POLYMER NANOPARTICLES

P48: **A. K. C. Mengel**, A. Breivogel, K. Mack, C. Förster, K. Heinze
(Johannes Gutenberg-Universität Mainz)
TUNING EXCITED STATES OF Iron (II) COMPLEXES – A WAY TO 3D CHROMOPHORES FOR DSSCs AND LECs

P49: **H. Kim**, T. Choi, M. Cha, J. Chang
(Seoul National University)
PREPARATION OF A POROUS POLYMER BY A CATALYST-FREE DIELS-ALDER REACTION AND ITS STRUCTURAL MODIFICATION BY POST-REACTION

P50: **Y. Kim**, I.A. Howard, M. Meister, F. Hinkel, K. Müllen, F. Laquai
(Max Planck Institute for Polymer Research)
CHARGE GENERATION IN SOLID-STATE DYE-SENSITIZED SOLAR CELLS USING PUSH-PULL DYES

P51: **N. Mohri**, H. Kerschbaumer, M Panthöfer, W. Tremel,
(Johannes Gutenberg-Universität Mainz)
ANODIZATION: A NEW ROUTE TO ANODES FOR THE DSSC AND NANOPOROUS BATTERIES

P52: **V. Bergmann**, A. L. Domanski, D. Li, S. A. L. Weber, R. Berger, H. Egelhaaf, H. Butt
(Max Planck Institute for Polymer Research)
IMAGING CROSS-SECTIONAL POTENTIAL DISTRIBUTIONS IN ORGANIC SOLAR CELLS UNDER ILLUMINATION

P53: **D. Mädge**, M. Henze, O. Prucker, J. Rühe
(University of Freiburg)
GRAFTING THROUGH: MECHANISTIC ASPECTS OF RADICAL POLYMERIZATION REACTIONS WITH SURFACE-ATTACHED MONOMERS

P54: **J. Ko**, W. Choi, T. Kim, Y. Han, K. Char
(Seoul National University)
ADDITIVE EFFECTS ON THE NANO-MORPHOLOGY IN BULK HETEROJUNCTION ORGANIC SOLAR CELLS

P55: N. Schorr, J. Belardi, **O. Prucker**, S. Wells, V. Patel, J.Rühe
(University of Freiburg)
MAGNETICALLY ACTUATED POLYMER FLAP ARRAYS AS AN EXAMPLE FOR ARTIFICIAL CILIA

P56: **G. Osterwinter**, R. Navarro-Crespo, J. Rühe
(University of Freiburg)
NOVEL CROSSLINKERS FOR THE GENERATION OF SURFACE-ATTACHED POLYMER FILMS BASED ON DIAZO CARBONYL COMPOUNDS

P57: **A. Munk**, Y. Kaconis, V. Vill, K. Brandenburg
(University of Hamburg)
SYNTHESIS AND PHYSICO-CHEMICAL PROPERTIES OF SELF ORGANIZING SPACERED ALKOXY DISACCHARIDE GLYCOLIPIDS

P58: **Stefan A.L. Weber**, Jason I. Kilpatrick, Tim Brosnan, Suzanne P. Jarvis and Brian J. Rodriguez
(Max Planck Institute for Polymer Research)
"SEEING" MOLECULES AT SOLID LIQUID INTERFACES

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(Mahatma Gandhi University)
"Polymeric smart skin substitutes with enhanced wound healing"