INSTITUT FÜR MAKROMOLEKULARE CHEMIE DER UNIVERSITÄT FREIBURG

Hermann – Staudinger – Haus

Bericht über die wissenschaftlichen Aktivitäten

2013

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1	ANGARANO, M. SCHULZ, S. FABRITIUS, M. VOGT, R. STEINBERG, T. TOMAKIDI, P. FRIEDRICH, C. MÜLHAUPT, R.	Layered Gradient Nonwovens of In Situ Crosslinked Electrospun Collagenous Nanofibers Used as Modular Scaffold for Soft Tissue Regeneration. *Adv. Func. Mater.* ***23*** *(26), 3277-3285 (2013)*
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27	MÜLHAUPT, R.	Functionalized graphenes and graphene dispersions for advanced materials, catalysis and printed batteries *Fa. Clariant Heufeld, Juli 2013*
28	MÜLHAUPT, R.	Functionalized graphenes and graphene dispersions for advanced materials *Fa. Solvay NOH Brüssel, Juli 2013*
29	MÜLHAUPT, R.	Funktionalisierte Graphene und Dispersionen *Evonik Industries AG Darmstadt, März 2013*
30	MÜLHAUPT, R.	1. Funktionale und funktionalisierte Kunststoffe – Perspektiven und Herausforderungen 2. Funktionalisierte Graphene und Kohlenstoffpolymere als vielseitige Additive und multifunktionale Materialien *Symposium "Funktionalisiert Kunststoffe" des Österreichische Forschungsinstituts Wien, November 2013*
31	MÜLHAUPT, R.	Graphene: Herstellung, Modifizierung etc. Chemie und Alternativen auf Basis nachwachsender Ressourcen *Workshop Fa. Byk Chemie Eckart GmbH Nürnberg, August 2013*
32	MÜLHAUPT, R.	Gutenberg in der dritten Dimension: 3D-Drucker für den Heimgebrauch *Rotary Club Freiburg, August 2013*

33	MÜLHAUPT, R.	Makromolekulare Chemie: Von Hermann Staudinger bis hin zu vielseitigen polymeren Stoffen und multifunktionalen Systemen *Schülertage, Albert-Ludwigs-Universität Freiburg, April 2013*
34	MÜLHAUPT, R.	Non-isocyanate polyurethanes from renewable resources and carbon dioxide *FORMULA VII, Universität Haute Alsace, Mulhouse, Juli 2013*
35	MÜLHAUPT, R.	Polyurethanes from renewable resources and carbon dioxide *Workshop "Fats and Oils as Renewable Feedstock for the Chemical Industry", KIT Karlsruhe, März 2013*
36	MÜLHAUPT, R.	Smart materials for modern sustainable architecture *Kick-off Meeting des SNF Schweiz, Muntelier/CH, Mai 2013*
37	MÜLHAUPT, R.	Supercaps durch Mikroextrusion und Siebdruck von Graphen *Rundgespräch „Supercaps", TU Dresden, Januar 2013*
38	MÜLHAUPT, R.	The Future of Plastics – the Unknown Vision of Nobel Laureate Hermann Staudinger *K2013 Messe Stand Fa. Celanese, Düsseldorf, Oktober 2013*
39	MÜLHAUPT, R.	Von Staudinger zu (Höchst) High Chem *150 Jahre Industriepark Höchst, Frankfurt-Höchst November 2013*
40	POGODINA, N. GILLIG, C. BODENDORFER, S. KERSCHER, B. IACOB, C. FRIEDRICH, C.	Structure and dynamics of novel hyperbranched polymeric ionic liquids *8th Annual European Rheology Conference (AERC), Session: Polymer Melts, Leuven, Belgium, April 2013*
41	SAREM, M. LUEDEKE, S THOMANN, R. SHASTRI, V. P.	Bone-like Nano Hydroxyapatite Deposition on Fibrous Polymer Matrices *Materials Research Society (MRS), Boston, USA, Dezember 2013*

42 SCHLÜTER, B.
KAILER, A.
MÜLHAUPT, R.

Functionalized Graphene: fabrication and tribological behaviour in ester oil
World Tribology Congress (WTC), Turin, Italien, September 2013

43 SCHNEIDER, J.
BARTSCH, E.
SHVETS, A.
SEMENOV, A.

Colloidal stabilization by unattached homopolymers
IRTG Discussion Meeting - Challenges and prospects of soft matter at interfaces Schluchsee, April 2013

44 SCHNEIDER, J.
BURGER, S.
STILKE, C.
BARTSCH, E.

How to Save Water in Paint Production
63rd Lindau Meeting of Nobel Laureates Lindau, Juli 2013

45 SCHNEIDER, J.
VAN MEGEN, W.
BARTSCH, E.

Influence of softness of nearly hard sphere on particle dynamics close to the first order freezing point
7th International Discussion Meeting on Relaxations in Complex Systems, Barcelona, Spain, Juli 2013

46 SCHNEIDER, J .
SHASTRI, V. P.

The Impact of Surface Chemistry on NP Uptake into Cells
Makromolekulares Kolloquium Freiburg, Februar 2013

47 SCHUHMANN, M.
BRINKER, A.
FRIEDRICH, C.

Fish meal replacement by plant protein substitution and guar gum addition in trout feed: Effects on faeces stability and rheology
FMF Kolloquium, Schluchsee, Oktober 2013

48 SHASTRI, V. P.

Classifications and Standardizations of Biomaterials for Health - Technologies
European Commission Workshop: Biomaterials for Health, Brüssel , Mai 2013

49 SHASTRI, V. P.

Design Principles for Synthetic Extracellular Matrices
Wilhelm und Else Heraeus-Stifung Semiar: Micro- and Nanostructured Interfaces for Biological and Medical Research, Bad Honnef, Juli 2013

50 SHASTRI, V. P.

Engineering Instructive Cellular Microenvironments
Network of Excellence for Functional Biomaterials (NFB) Seminar, National University of Ireland, Galway, Irland, März 2013

51 SHASTRI, V. P.

Engineering Instructive Cellular Microenvironments
GDCh – Vortrag, Universität Bayreuth, Mai 2013

52 SHASTRI, V. P.
Engineering Instructive Cellular Microenvironments
Institute for Organic Chemistry, Leibniz Universität Hannover, Hannover, Mai 2013

53 SHASTRI, V. P.
Functional Image Co-Registration: an Essential and Powerful Pre-Clinical Tool
E-MRS Spring Meeting, Straßburg, Frankreich, Mai 2013

54 SHASTRI, V. P.
Leveraging Material Properties to Control Signaling in Cells
Tag der Forschung und Graduierung, Falkultät für Chemie und Pharmazie der Uni Freiburg, Juli 2013

55 SHASTRI, V. P.
Seeding Porous Scaffolds
Helmholtz Virtual Institute on Multifunctional Biomaterials, Methods Workshop, Berlin, April 2013

56 SHASTRI, V. P.
Synthetic Extracellular Matrices
Lonza, Basel, Schweiz, Oktober 2013

57 WYSS, P. P.
SHASTRI, V. P.
MRI Contrast Agents for Functional Imaging
Fakultät für Chemie und Pharmazie der Albert Ludwigs-Universität Freiburg
Tag der Forschung, Juli 2013

V E R A N S T A L T U N G E N

Makromolekulares Kolloquium Freiburg, Februar 2013 (circa 810 Teilnehmer)

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OELKER, Katharina
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SCHIEFER, Daniel
SCHNEIDER, Jochen
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STÜRZEL, Markus
SYGA, Isabel
TESKE, Nele
TÖLLE, Folke
TRENKLE, Stephanie
TSCHOPPE, Katrin
VIELHAUER, Maximilian
VOIGT, Julia
WARTIG, Karen-Alessa
WYSS, Pradeep
WURTH, Jonathan
XIANG, Shengnan
YAO, Chunyan

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BÖHM, Ricarda
LAULE, Stephan
LÖFFLER, Matthias
MENZEL, Matthias
SCHMIDT, Stanislaus

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BENDIX, Phillip Bertrand
GISIN, Joshua
GOURSOT, Pierre
HEILEMANN, Axel
MÄKELÄ, Meri
NÜBLING, Fritz
RANDRIANTSKEFISOA, Rotsiniaina
SAFKLOU, Elaf
SCHIMPF, Vitalij
WERNER, Marcel

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DOGAN, Ezgi Süheyla
METZLER, Lukas
MÜLLERS, Stefan
RAISCH, Maximilian
STIHL, Markus
STRAUB, Alexander
VOLK, Lukas

G Ä S T E D E S I N S T I T U T S

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DEPARTMENT OF PHOTONICS AND OPTICAL INFORMATICS, NATIONAL RESEARCH UNIVERSITY OF IT, MECHANICS AND OPTICS, ST.PETERSBURG, RUSSIAN FEDERATION

PROF. FRANK SCHEFFOLD
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PHAM, M.
UNIVERSITÉ PIERRE ET MARIE CURIE, PARIS, FRANKREICH

PROF. MITCHELL A. WINNIK
CHEMISTRY DEPARTMENT, UNIVERSITY OF TORONTO, CANADA

DR. YAN LU
HELMHOLTZ-ZENTRUM FÜR MATERIALIEN UND ENERGIE, BERLIN

G A S T V O R T R Ä G E

im Institut für Makromolekulare Chemie der Universität Freiburg im Breisgau

(im Rahmen des Gemeinsamen Seminars über makromolekulare und physikalische Chemie und des IRTG: Soft Matter Science)

1	09.01.13	PROF. DR. HOLGER FREY Institute of Organic Chemistry Organic and Macromolecular Chemistry, Johannes Gutenberg-Universität Mainz Poly(ethylene glycol) and Poly(propylene glycol): Adventures in a Highly Established Class of Materials
2	16.01.13	DR. THOMAS F. KELLER Institute of Materials Science and Technology (IMT), Friedrich-Schiller University Jena Self-Organisation of Macromolecules and Biomacromolecules at Interfaces
3	23.01.13	PROF. MITCHELL A. WINNIK Chemistry Department, University of Toronto, Canada 1.) pH-responsive polymer nanoparticles designed for environmentally compliant coatings 2.) Crystallization-driven self-assembly of block copolymer micelles
4	30.01.13	DR. IGOR M. KULIC CNRS, Institut Charles Sadron, Strasbour/F Non-Equilibrium Self Assembly by Coherent Dispersion Forces: Colloidal Membranes and Doughs
5	06.02.13	DR. ROMAN BENOIT Laboratoire de Physique et Mécanique des Milieux Hétérogènes, École Supérieure de Physique et de Chimie Industrielles Tearing thin sheets: How to open a package and peel off scotch tape?
6	13.02.13	PROF. DR. GRAHAM L. W. CROSS Trinity College Dublin, CRANN Institute and School of Physics, Dublin/Ireland Polymer Deformation During Nanostructure Fabrication by Mechanical Processing: Size Effects and Novel Flow Mechanisms
7	15.03.13	DR. YAN LU Helmholtz-Zentrum für Materialien und Energie, Berlin Functional Hybrid Materials Based on Polymeric Colloidal particles

8 17.04.13 PROF. DR. ULRICH BOCKELMANN
Laboratoire de Nnanobiophysique ESPCI, Paris/F
Studying the dynamics and mechanics of biological polymers at the single molecule level

9 08.05.13 DR. FABRICE THALMANN
Institut Charles Sadron, CNRS UPR Université de Strasbourg/F
Phase coexistence in ternary cholesterol-phospholipid mixtures: prediction, capillary forces and dynamics

10 15.05.13 PROF. DR. ANDREAS TAUBERT
Institute of Chemistry, University of Potsdam
Calcium phosphate mineralization control by polycations and by surfaces and interfaces

11 05.06.13 PROF. ANDREY VENIAMINOV
Department of Photonics and Optical Informatics, National Research University of IT, Mechanics and Optics, St. Petersburg, Russian Federation
Relaxation of Photoinduced Gratings for Material Studies and Hologram Formation

12 12.06.13 PROF. DR. ANNA KÖHLER
EPII and BIMF, Department of Physics, University of Bayreuth
Order-disorder transitions in conjugated polymers

13 19.06.13 PROF. DR. MARTIN HOF
J. Heyrovský Institute of Physical Chemistry, Academy of Sciences of the Czech Republic
Hydration, mobility, aggregation and nanodomain formation in model membranes studied by fluorescence

14 26.06.13 PROF. DR. CHRISTOPH WEDER
Adolphe Merkle Institute and Fribourg Center for Nanomaterials, University of Fribourg/CH
Exploiting Non-Covalent Interactions for the Design of Stimuli-Responsive Polymers

15 03.07.13 DR. ANTON KIRIY
Leibniz Institute of Polymer Research Dresden
Chain-growth polycondensation – advanced tool for preparation of semiconductive polymers

16 17.07.13 DR. DANIELE FAZZI
Max-Planck-Institut für Kohlenforschung, Mülheim an der Ruhr
Structure-property relationships in a high electron mobility copolymer: from spectroscopy to charge transport mechanisms in P(NDI2OD-T2)

17 17.07.13 DR. MARIO CAIRONI
Center for Nano Science and Technology @PoliMi, Istituto Italiano die Tecnologia, Milano/Italy
Mapping charge transport in high-mobility polymer field-effect transistors via polarized charge modulation microscopy

18 14.11.13 DR. HANS RIEGLER
Max-Planck-Institut für Kolloid- und Grenzflächenforschung, Potsdam
Physics of Spin Casting Dilute Solutions

19 20.11.13 PROF. DR. BERND TIEKE
Department of Chemistry, University of Cologne
Polymers based on diketopyrrolopyrrole and related chromophors for electronic applications

20 11.12.13 PROF. FRANK SCHEFFOLD
Department of Physics and Fribourg Center for Nanomaterials, University of Fribourg, Switzerland
The fascination of randomly packed spheres: from dense emulsions to photonic materials design

21 18.12.13 PROF. DR. ULLRICH SCHERF
Macromolecular Chemistry Group, Institute for Polymer Technology University of Wuppertal
Materials Synthesis as a Key Factor for Organic Electronics Applications