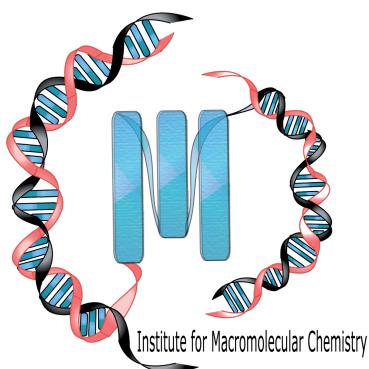


**INSTITUT FÜR MAKROMOLEKULARE CHEMIE  
DER UNIVERSITÄT FREIBURG**

**Hermann – Staudinger – Haus**



**Bericht über  
die wissenschaftlichen Aktivitäten**

**2015**

**Stefan-Meier-Str. 31, 79104 Freiburg, Germany**

**UNI  
FREIBURG**



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*BASF SE / US Pat.Appl.Publ. US 20140225026 A1 20140814*

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Methods for purifying polysaccharides and pharmaceutical compositions and medical devices containing the same

*United States Utility Patent Application*

## DISSERTATIONEN

BECKERT, Michaela	Stickstoff-funktionalisiertes Graphen für Polyamid 12 – Nanokomposite, Katalyse und Brennstoffzellen
BÖHM, Ricarda	Tannin and hydroxypropylated tannin as bio-based building blocks for rigid foams, wood adhesives and polyurethane thermosetting plastics
BODENDORFER, Simon	Maßgeschneiderte Mehrzentren-Trägerkatalysatoren und Tandem-Katalyse für selbstverstärkende Polyethylen-Reaktorblends und Mehrlagen-Graphen-Nanokomposite
BURGER, Dominik	Herstellung, Modifikation und Analyse sterisch stabilisierter, fluorierter Modellkolloide in wässriger Dispersion
BURGER, Stefanie	Einfluss von Attraktionsreichweite und Vernetzungsgrad auf das Phasenverhalten von Polymer-Mikrogel-Dispersionen
CHRISTENSEN, Jon	Identification of Novel Therapeutic and Prognostic Targets in Cancer and Development of <i>in vivo</i> Real-Time Tumor Imaging System
HOFMANN, Daniel	Funktionalisiertes Graphen als multifunktionales Additiv und Nanofüllstoff für die Schmelzcompoundierung von Thermoplasten und thermoplastischen Elastomeren
NICOLI, Elena	Study of Strategies for Increasing Biocompatibility and Effectiveness of Polyethylenimine Carriers for Gene Therapy
RITTER, Benjamin S.	Thermoplastische, biobasierte, polyethylen-ähnliche Polyester und isocyanatfreie Darstellung biobasierter Polymere unter vollständiger stofflicher Nutzung
STÜRZEL, Markus	Selbstverstärkende Polyethylenreaktorblends und Graphen-Nanokomposite durch heterogene Mehrzentrenkatalyse
SCHWABE, Jeremia	Gibbsit- und Aluminiumoxid- Einkristallnanoplättchen für PE-Nanokomposite, Mehrzententrägerkatalysatoren und selbstverstärkendes Polyethylen
TSCHOPPE, Katrin	Funktionalisiertes Graphen und neue Kohlenstoffnanofüllstoffe für Epoxidharze

## MASTERARBEITEN

BROLL, Sebastian	Synthese von Diketopyrrolopyrrol-Tetrafluorbenzolcopolymeren mittels direkter C-H Arylierungspolykondensation
BURK, Laura	Mechanochemisch funktionalisierte Graphene für Kohlenstoff / Polypropylen-Nanokomposite
KEMPE, Fabian	Alkylierung von Spiropyranen mittels Kumada- und Suzuki-Kreuzkupplungen
MÜLLERS, Stefan	Kovalente Funktionalisierung von Graphen mit Poly(3-hexylthiophen) <i>via</i> Diels-Alder Reaktion
PÖSSEL, Burkhardt	Isocyanatfrei-hergestellte Polyurethan-Nanocomposite auf Basis von nanoskaligen Gibbsit-Einkristallen
SCHMIDT, Simon	Synthese von alkylierten Spiropyranen mittels 9-BBN-basierten Suzuki-Kreuzkupplungen
ZHONG, Fan	Functionalized Gibbsite and Gibbsite supported catalysts for PE reactor blends

## BACHELORARBEITEN

BLEIZIFFER, Alexander	Synthese teilkristalliner, isocyanatfrei herstellter Polyurethannetzwerke auf Basis nachwachsender Rohstoffe
DECKER, Stefan	Rheologische Eigenschaften von hyperverzweigtem Polyglycerin mit variablem Verzweigungsgrad
GÖPPERT, Natalie Elisabeth	Isocyanatfrei herstellte Polyurethannetzwerke aus sorbitolbasierten, cyclischen Carbonaten
HECHENBICHLER, Michelle	Synthese Squalen-basierter Elektrolyte für Natriumionenbatterien
HIMMELSBACH, Andreas	Optische Selbstheilung durch migrierfähige Amphiphile in iPP-Kompositen
KAISER, Jan	Synthese von selbst-dotierenden Naphthalindimid-Derivaten
LUITZ, Manuel	Isocyanatfreie Synthese thermoplastischer Polyurethane auf Basis von Butadiendicarbonat durch Reaktionsextrusion
MADER, Markus	Synthese Borat basierter Elektrolyte und deren Anwendung in Superkondensatoren
MANGOLD, Mikel	Semikristalline NIPUs auf Basis von Cashew Nutshell Liquid
MARX, Franziska	Modellreaktionen an Di(thienyl)benzothiadiazol zur Untersuchung von C-H Selektivitäten bei der direkten C-H Arylierungspolykondensation
NGYEN, Duy Thong	Einfluss der Methylierung auf die thermorheologischen Eigenschaften von linearen Polyglycerinen
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PARISON, Karsten	Isocyanatfreie Synthese von thermoplastischen, teilkristallinen Polyurethanen
RABE, Anna	Charakterisierung kolloidaler Dispersionen von Polystyrol-Mikrogelen
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SCHWEIGERDT, Alexander	Synthese von Amin-funktionalisierten Fluoren für den Einsatz in Perowskit Leuchtdioden

STRAUB, Paula	Radikalfunktionalisierung von Graphen via Diels-Alder-Reaktion zur Anwendung als Energiespeicher
TRITSCHLER, Benedikt	Synthesis and Characterization of Biodegradable Segmented Polyurethanes with Various Transition Temperatures for Shape Change
WOLFF, Raffael	Verstärkungswirkung kohlenstoffbasierter Füllstoffe in einem kommerziellen Ethen-1-Octencopolymer

## VORTRÄGE UND POSTER

1. BARTSCH, E. Fluidization of highly concentrated colloidal dispersions by tailoring of attractive interactions  
*Jülich Soft Matter Days, Bad Honnef, September 2015 INVITED TALK*
2. BURCHARD, W. Hyperbranching and Excluded Volume Interactions  
*Scientific Wyatt Conference on Light Scattering, Dettingen, 2015*
3. BURCHARD, W.  
SCHNEIDER, J.  
WERNER, M. Some principles on Properties of hyperbranched polymers including excluded volume interactions  
*2<sup>nd</sup> Intern. Conf. on Hyperbranched and Dendrimeric Structures and Polymer Brushes, Freiburg, November 2015*
4. BURCHARD, W. Polymers in Confinements  
*Seminar Contribution, AK Bartsch, Freiburg, December 2015*
5. FRIEDRICH, C. Rheology and Soft Matter  
*MAINZ Graduate School, Mainz, July 2015*
6. FRIEDRICH, C. Thermo-rheological behavior of hyperbranched Polyether-Polyols: Role of molecular weight and functionality  
*2<sup>nd</sup> International Workshop on Dendrimers & Hyperbranched Polymers, Freiburg, November 2015*
7. KIESSLING, A.  
LE HOUÉROU, V  
GAUTHIER, C.  
BARTSCH, E Nanostructured Composites: From Molecular Diffusion to Macroscopic Performance  
*Makromolekulares Kolloquium, Freiburg, February 2015 POSTER*
8. KIESSLING, A.  
LE HOUÉROU, V  
GAUTHIER, C.  
BARTSCH, E. Nanoscale Analysis of Scratch Resistant Nano-Structured Coatings by Forced-Rayleigh Scattering  
*E-MRS 2015 Spring Meeting, Lille (France), May 2015 TALK*
9. KIESSLING, A.  
LE HOUÉROU, V  
GAUTHIER, C.  
BARTSCH, E. Nanostructured Composites: From Molecular Diffusion to Macroscopic Performance  
*IACIS 2015, Mainz, May 2015 POSTER*

10. LESNICHII, V.  
LUTZ, P.  
BARTSCH, E.  
VENIAMINOV, A  
Tracer and polymer chain diffusion in the vicinity of glass transition studied by Forced Rayleigh Scattering  
*5<sup>th</sup> SoMaS School, Mittelwihr, France, July 2015, POSTER*
11. LESNICHII, V.  
BARTSCH, E.  
VENIAMINOV, A.  
Study of diffusion in bulk polymer films below glass transition: evidences of dynamical heterogeneities  
*IX International Conference «Optics-2015», Saint-Petersburg, Russia, October 2015, POSTER*
12. LESNICHII, V.  
BARTSCH, E.  
VENIAMINOV, A.  
REITER, G.  
LUTZ, P.  
Similarities in bifurcational behavior of diffusion coefficients in some bulk and thin polymer films below  $T_g$   
*IRTG Fall Workshop, Breisach, Germany, October 2015, TALK*
13. LINDNER, P.  
BURGER, S.  
WERNER, M.  
BARTSCH, E.  
Investigation of deswelling of highly crosslinked polystyrene microgel colloids in colloid-polymer mixtures close to the glass transition
14. LOMBECK, F.  
KOMBER, H.  
FRIEND, R.H.  
SOMMER, M.  
Compatibilization of conjugated polymer-polymer blends with semiperfluorinated all-conjugated block copolymers  
*Bayreuther Polymersymposium, September 2015*
15. LOMBECK, F.  
KOMBER, H.  
FRIEND, R.H.  
SOMMER, M.  
Compatibilization of conjugated polymer-polymer blends with semiperfluorinated all-conjugated block copolymers  
*European Conference on Molecular Electronics, Strasbourg, September 2015*
16. MATLOUBI, M.  
BLUMENTHAL, N.  
SHASTRI, V.P.  
Novel biodegradable polyurethane for thermally activatable cardiovascular stents  
*Macromolecular Colloquium, Freiburg, Germany, February 2015*
17. MATLOUBI, M.  
BLUMENTHAL, N.  
SHASTRI, V.P.  
Degradation and cellular compatibility of poly(hydroxy acid)-based segmented polyurethanes  
*European Society for Biomaterials Conference (ESB 2015), Krakow, Poland, September 2015*
18. MATLOUBI, M.  
BLUMENTHAL, N.  
SHASTRI, V.P.  
Tunable biodegradable polyurethane with thermal activation cues at human body temperature  
*European Society for Biomaterials Conference (ESB 2015), Krakow, Poland, September 2015*
19. MÜLHAUPT, R.  
Green Polymer Chemistry  
*European Coatings Congress, Nürnberg, April 2015*

20. MÜLHAUPT, R.  
Ressourceneffizienz und ‘All-Polyethylene’-Nanocomposite für den Leichtbau durch Tandem-Katalyse, kompartimentierte Multizentren-Katalysatoren und meso-skopische Formreplikation (multiKAT)  
*„i-WING 2015 – Vom Material zur Innovation“ Konferenz des BMBF, Dresden, April 2015*
21. MÜLHAUPT, R.  
New Horizons in Sustainable Materials Research  
*GDCh-Vortrag an der Universität Konstanz, April 2015*
22. MÜLHAUPT, R.  
Makromolekulare Chemie: Von Hermann Staudinger bis hin zu vielseitigen polymeren Stoffen und multifunktionalen Systemen  
*Schülerstage Albert-Ludwigs-Universität Freiburg April 2015*
23. MÜLHAUPT, R.  
Grüne Kunststoffe  
*Rotary Club Freiburg, Mai 2015*
24. MÜLHAUPT, R.  
Catalyst-mediated nanostructure formation and all-polyethylene composites  
*European Polymer Congress 2015, Dresden, Juni 2015*
25. MÜLHAUPT, R.  
Polymerization catalysis for high resource- and energy-efficiency  
*GDCh-Vortrag an der Friedrich-Schiller-Universität Jena, Juli 2015*
26. MÜLHAUPT, R.  
Concepts and Methods in Soft Matter: Tailor-made polymers  
*SoMaS Summer School, Mittelwihr/Frankreich, Juli 2015*
27. MÜLHAUPT, R.  
Polyolefins: From the lab to the industry  
*SoMaS Summer School, Mittelwihr/Frankreich, Juli 2015*
28. MÜLHAUPT, R.  
Sortenreine molekulare Verbundwerkstoffe für den nachhaltigen Leichtbau susCOMP  
*FhG für Werkstoffmechanik/Leistungszentrum Freiburg, Juli 2015*
29. MÜLHAUPT, R.  
3D Printing of Biomaterials and Batteries  
*Sustainability Summit FhI für Kurzzeiddynamik Freiburg, Oktober 2015*

30. NÜBLING, F.  
SOMMER, M.
- Electron cascade reactions in hierarchically nanostructured polymer solar cells  
*"Funktionelle Nanostrukturen" Kompetenznetz Baden-Württemberg Stiftung  
 Bad-Herrenalb, Oktober 2015*
31. SAREM, M  
BARBERO, A.  
ARYA, N.  
MARTIN, I  
SHASTRI, V. P.
- Bone Like Microenvironment Induces Hypertrophy in Phenotypically Stable Nasal Chondrocytes  
*Orthopedic Research Society Las Vegas, USA  
 March 2015*
32. SAREM, M  
BARBERO, A.  
SALAVEI, P.  
MARTIN, I  
SHASTRI, V. P.
- Bone Engineering via Provisional Cartilage Matrix:  
 Can Bone-Like Nano Hydroxyapatite Play a Role?  
*Oral Presentation  
 Materials Research Society conference,  
 San Francisco, USA April, 2015*
33. SAREM, M  
LÜDEKE, S.  
THOMANN, R.  
SHASTRI, V. P.
- Nucleation and Growth of Bone-Like Hydroxyapatite via Controlled Conformational Changes in Highly Phosphorylated Proteins  
*Las Vegas, USA, April 2015*
34. SCHAERTL, N.  
PALBERG, T.  
BARTSCH, E.
- Crystallization of binary colloidal mixtures  
*DPG Frühjahrstagung, Berlin, März 2015, TALK*
35. SCHAERTL, N.  
PALBERG, T.  
BARTSCH, E.
- First observation of the Laves phase in hard sphere colloidal mixtures  
*ECIS, Bordeaux, September 2015, TALK*
36. SCHAERTL, N.  
PALBERG, T.  
BARTSCH, E.
- The Laves phase in binary hard sphere-like colloidal mixtures  
*Tag der Forschung an der Fakultät für Chemie und Pharmazie 2015, Albert-Ludwigs-Universität,  
 Freiburg, Juli 2015, POSTER*
37. SCHIEFER, D.  
WEN, T.  
WANG, Y.  
KOMBER, H.  
BRAUNSTEIN, P.  
REITER, G.  
SOMMER, M.
- Synthesis of Highly Regioregular Polythiophene with Bulky Side Chains and its Anisotropic Photophysical Properties in Large Spherulites  
*Makromolekulares Kolloquium, Freiburg, Februar 2015*
38. SCHNEIDER, J.  
RABE, A.  
WIEMANN, M.  
BARTSCH, E.
- Investigation of small deviations from true hard sphere behavior using polystyrene microgels of different cross-linking density  
*Jülich Soft Matter Days, Bad Honnef, September 2015, POSTER*

39. SHASTRI, V.P. Functional Systems for Tissue Regeneration and Targeted Therapeutics  
*Advanced Functional Polymers for Medicine 2015, March 2015, Galway, Ireland*
40. SHASTRI, V.P. Biophysical Cues in Tissue Morphogenesis  
*Seminar in Prof. Fratzl's group, MPI of Colloids and Interfaces, Postdam, Germany, May 2015*
41. SHASTRI, V.P. Unraveling the Biophysical Cues in Cellular Organization  
Adolphe Merkle Institute, University of Fribourg, Fribourg, Switzerland, May 2015
42. SHASTRI, V.P. Unraveling the Biophysical Cues in Cellular Organization  
*10<sup>th</sup> Materials' Days, University of Rostock, Rostock, Germany, June 2015*
43. SHASTRI, V.P. Mechanobiology in the Vascular Development and Central Nervous System  
*CEITEC/ICRC Annual Conference "Frontiers in Life and Materials Sciences: Creating Life in 3D", Brno, Czech Republic, June 2015*
44. SHASTRI, V.P. Biominerization – a Confluence of Biophysics and Biology: Challenges and Opportunities  
*MRS Webinar on Biominerization, July 2015*
45. SHASTRI, V.P. BIOSS Area C: Achievements, Goals and Outlook  
*BIOSS Retreat, Schluchsee, Germany, July 2015*
46. SHASTRI, V.P. Biophysical Cues and Their Role in Tissue Morphogenesis  
*IEEE Engineering in Medicine and Biology Society 2015, Milan, Italy, August 2015*
47. SHASTRI, V.P. Articular Chondrocyte-Derived Chondrogenesis in ArcGels  
*Helmholtz Virtuelles Institut – Consortium Meeting, Berlin, Germany, September 2015*
48. SHASTRI, V.P. Multi-Modal Imaging to Visualise Tumours  
*Microscopy Congress 2015, London, UK, November 2015*
49. SHASTRI, V.P. Flavoring Nanoparticles for Cell Uptake  
*SFB Lecture, Mainz, Germany, December 2015*

50. SOMMER, M. Compatibilizing Fluorinated All-Polymer Blends for Photovoltaics  
*Abschlussstreffen DFG Schwerpunktprogramm "Elementarprozesse organische Photovoltaik" Bad Honnef, Januar 2015*
51. SOMMER, M. Dynamic functional materials based on spiropyran  
*FIT Kolloquium, Freiburg, Februar 2015*
52. SOMMER, M. Direct arylation in material science: better than Stille and Suzuki cross-coupling?  
*Makromolekulares Kolloquium, Freiburg, Februar 2015*
53. SOMMER, M. Synthese und Defektanalyse konjugierter Polymere  
*Chemiedozententagung, Regensburg, März 2015*
54. SOMMER, M. Main chain defects in conjugated polymers  
*International conference on light harvesting processes, Kloster Banz, März 2015*
55. SOMMER, M. Conjugated polymers: Old questions, new syntheses and high performance materials  
*IRTG Seminar Institute Charles Sadron, Strasbourg, März 2015*
56. SOMMER, M. Direct arylation in material science: better than Stille and Suzuki cross-coupling?  
*Max-Planck-Institut für Polymerforschung, Mainz, März 2015*
57. SOMMER, M. Direct arylation in material science: better than Stille and Suzuki cross-coupling?  
*Synthesis Seminar Universität Wuppertal, Juni 2015*
58. SOMMER, M. New approaches to cross-linking graphene for controlling porosity of carbon materials  
*GONET Auftakttreffen Fraunhofer Institut für angewandte Festkörperphysik, Freiburg Juni 2015*
59. SOMMER, M. The advent of direct arylation polycondensation in material science: exploiting greener reaction schemes for the synthesis of high performance conjugated materials  
*European Polymer Congress Dresden, Juni 2015*
60. SOMMER, M. High performance conjugated polymers via C-H Arylation  
*International conference on functional pi-systems, Seattle Juli 2015*

61. SOMMER, M.  
New syntheses of optoelectronic and responsive polymers  
*Vorstellungsvortrag W3 Professur Chemnitz, Juli 2015*
62. SOMMER, M.  
C-H Arylation in material science  
*Simon Fraser University Vancouver, Juli 2015*
63. SOMMER, M.  
Greener reactions to optoelectronic and responsive conjugated materials  
*Vorstellungsvortrag W3 Professur Freiburg, September 2015*
64. SOMMER, M.  
The advent of direct arylation polycondensation in material science: sustainable routes to conjugated polymers  
*Bayreuther Polymersymposium, September 2015*
65. SOMMER, M.  
The advent of direct arylation polycondensation in material science: sustainable routes to high electron mobility conjugated polymers  
*European conference for molecular electronics, Strasbourg, September 2015*
66. SOMMER, M.  
Sustainable routes to high performance conjugated materials  
*GDCh Habilitandenworkshop Leverkusen, September 2015*
67. SOMMER, M.  
Elektronenkaskadenreaktionen in hierarchisch nanostrukturierten effizienten Polymersolarzellen  
*Auftakttreffen Funktionelle Oberflächen und Materialien für eine nachhaltige Energieversorgung, Bad Herrenalb, Oktober 2015*
68. SOMMER, M.  
Conjugated and responsive polymers: defect structures, new syntheses and high performance materials  
*SFB Transregio Seminar Universität Halle, Dezember 2015*
69. SOMMER, M.  
Conjugated and responsive polymers: defect structures, new syntheses and high performance materials  
*Adolphe Merkle Institute Fribourg, Dezember 2015*
70. SOMMER, M.  
Simple avenues to defect-free and high performance conjugated polymers  
*Winterschool Politecnico Milano, Bormio, Dezember 2015*

71. WILHELM, M.  
RATZSCH, K.F.  
FRIEDRICH, C.  
Rheo-SAXS, Rheo-NMR and Rheo-Dielectric to bridge  
length and time scales in polymers  
*10th Annual European Rheology Conference*  
*(AERC2015), April, Nantes, F (P)*
72. WYSS P.  
BOUTEGHMES, S.  
HERRERA, L.C.  
AHMADI, V.  
SHASTRI, V. P.  
Nanoparticles with bone targeting capabilities for  
multimodal imaging  
*4<sup>th</sup> international meeting for Multifunctional, Hybrid  
and Nanomaterials, Barcelona Spain, March 2015*

## VERANSTALTUNGEN

Makromolekulares Kolloquium Freiburg, Februar 2015 (circa 700 Teilnehmer)

## WISSENSCHAFTLICHE LEITUNG UND MITARBEITER DES INSTITUTS

### DIREKTOREN

PROF. DR. ROLF MÜLHAUPT  
PROF. DR. V. PRASAD SHASTRI

### DOZENTEN

PROF. DR. ECKHARD BARTSCH  
PROF. DR. DR. CHRISTIAN FRIEDRICH

### EMERITI

PROF. DR. WALTHER BURCHARD  
PROF. DR. DR. H.C. HANS-JOACHIM CANTOW  
PROF. DR. DR. H.C. HEINO FINKELMANN  
PROF. DR. WOLFRAM GRONSKI  
PROF. DR. DR. H.C. HANS ADAM SCHNEIDER

## WISSENSCHAFTLICHE MITARBEITER

DR. NEHA ARYA  
DR. RALF HANSELMANN  
DR. VICTOR HUGO PACHECO TORRES  
DR. MICHAEL SOMMER  
DR. RALF THOMANN  
DR. YI THOMANN  
DR. DANIEL VONWIL  
MIRIAM HEIZMANN

## DOKTORANDEN

AHRENS, Lucas	MATLOUBI, Maziar
BURKARD, Jochen	MATHAIYAN, Nehrukumar
BURK, Laura	NÜBLING, Fritz
BLATTMANN, Hannes	OELKER, Katharina
BLUMENTHAL, Nils	PÖSSEL, Burkhardt
BODENDORFER, Simon	RITTER, Benjamin S.
BURGER, Dominik	RUKEYAMU, Matztisidike
BURGER, Stefanie	SAMADI, Mariam
CHRISTENSEN, Jon	SAREM, Melika
DOLD, Martin	SCHÄRTL, Nicole
GISIN, Joshua	SCHIEFER, Daniel
GÖLDEN, Simon	SCHLECHTENDAHL, Mark
HAMEURY, Sophie	SCHIMPF, Vitalij
HEGE, Cordula	SCHMIDT, Stanislaus
HEINY, Markus	SCHNEIDER, Jochen
HERRERA, Laura Cecilia	SCHREIBER, Andreas
HOFMANN, Daniel	SCHWABE, Jeremia
HUBER, Michael	STARCK, Laurent
KASPER, Patrick	STÜRZEL, Markus
KEINATH, Michaela	WERNER, Marcel
KIESSLING, Andy	WOLF, Jürgen Daniel
KIRSCHVINK, Felix	WYSS, Pradeep
LAMICHHANE, Surya	XIANG, Shengnan
LAZAR, Ion	YAO, Chunyan
LESNICHII, Vasilii	ZHANG, Weihai
LOMBECK, Florian	ZHANG, Wenli

**STUDIERENDE IM  
MASTERSTUDIUM**

DITASARI, Amanda Arvian  
KAISER, Jan  
KEMPE, Fabian  
KUHLMANN, Jochen  
KUNZ, Susanna  
METZLER, Lukas  
MÜLLERS, Stefan  
NI, Qian  
RAISCH, Maximilian  
SCHMIDT, Simon  
SEHL, Elmar  
STEGERER, Dominik  
STRÄSEL, Karen  
TRÖTSCHLER, Tobias  
WERNER, Marcel  
XU, Liang  
YANG, Yuan  
YOUNGHUN, Shin  
ZHANG, Chen

**STUDIERENDE IM  
BACHELORSTUDIUM**

BLEIZIFFER, Alexander  
BOZIC, Michael  
BUCHHEIT, Hannah  
GÖPPERT, Natalie  
HALDA RIBEIRA, Anielen  
HECHENBICHLER, Michelle  
HUBER, Laura  
LEONHARDT, Jens  
LUITZ, Manuel  
MANGOLD, Mikel  
MADER, Markus  
MARX, Franziska  
OBERMAYER, Johannes  
PAFFRATH, Lukas  
PFOHL, PATRIZIA  
RABE, Anna  
RIEHLE, Felix  
RUSITOVS, Dennis  
SCHMIDT, Gabriela  
SCHWEIGERDT, Alexander  
STRAUB, Paula  
TRITSCHLER, Benedikt

## **GASTVORTRÄGE**

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. 07.01.15 PROF. DR. JAN DE BOER  
Maastricht University Niederlande  
Engineering the biology of bone regeneration
2. 14.01.15 DR. RALF P. RICHTER  
Biological hydrogels – from supramolecular organization and dynamics to biological function
3. 21.01.15 PROF. DR. EDUARDO FERNANDEZ-MEGIA  
GATG Dendrimers: Bioapplications, Multivalency and Dynamics
4. 28.01.15 PROF. DR. JENS-UWE SOMMER  
Crossing barriers: Passive transport of polymers and nano-particles through lipid bilayer membranes
5. 11.02.15 DR. VÉRONIQUE TRAPPE  
Co-nonsolvency at the transition between salvation mechanisms
6. 22.04.15 PROF. DR. ULLRICH STEINER  
Kinetic evolution of structure formation in polymer films for organic photovoltaics
7. 29.04.15 PD DR. FALKO ZIEBERT  
Universal properties of growing interfaces
8. 06.05.15 PROF. DR. ALEXANDER ROHRBACH  
Cellular biophysics on the small and fast scale
9. 13.05.15 PROF. DR. MARKUS RETSCH  
Colloidal Assembly Structures and their Role in Energy Conversion and Conservation
10. 03.06.15 DR. DORU CONSTANTIN  
The membrane-mediated interaction between nano-objects
11. 10.06.15 PROF. DR. PAOLO SAMORI  
From chemical complexity to multifunctional low-dimensional materials

12. 24.06.15 PROF. DR. HARTMUT LÖWEN  
Active Soft Matter Systems
13. 01.07.15 DR. KAI ZHANG  
Conjugated porous polymers for visible light photocatalysis: a metal-free alternative
14. 22.07.15 PROF. DR. ERNST RÖSSLER  
Field-cycling NMR: From simple relaxometry to molecular rheology
15. 23.07.15 PROF. DR. REINHOLD W. LANG  
SolPol – A Science-Driven Austrian Research Initiative on Polymeric Materials for Solar Energy Technologies
16. 13.07.15 PROF. DR. ALFRED BLUME  
Interactions of polyphilic molecules with model membranes and monolayers
17. 15.07.15 DR. JACK F. DOUGLAS  
Numerical Path-Integration Computation of the Transport Properties of Polymers nanoparticles and Complex Biological Structures
18. PROF. DR. ALEXEI LIKHTMAN  
07.10.15 Relaxation of surface tension and dynamic contact angle in simple liquids
19. PROF. DR. HEIKO HEERKLOTZ  
21.10.15 Activity and selectivity of membrane permeabilizing peptides
20. 28.10.15 PROF. DR. CHRISTIAN WAGNER  
Adhesion strengths, shapes and the dynamics of macromolecule-induced cell clusters at stasis and in microcapillary flow
21. 05.11.15 PD DR. ANDREAS MENZEL  
Mesoscopic modeling of magnetic gels
22. 18.11.15 DR. NICOS MARTYS  
Computational Modelling of Suspensions: From Hard Spheres to Superballs to Concrete
23. 25.11.15 PROF. DR. HELMUT SCHLAAD  
Functional polymers from amino acids and sugars
24. 26.11.15 PROF. DR. TATIANA BIRSHEIN  
Layered structure of planar Dendron brushes
25. 04.12.15 DR. HANS RIEGLER  
Nanoaggregates, bubbles, droplets and thin films: The influence of interfacial energies in confined systems

26. 09.12.15 PROF. DR. JÜRGEN KLINGAUF  
Xenapses: pure presynaptic structures induced by direct neuronal interfacing on functionalized microstructure coverslips
27. 16.12.15 DR. STEFAN WALHEIM  
Polymer-based Nanotechnology and Self-Assembled Monolayers:  
From Polymer Blend Lithography to the Salvinia-Effect

