APPENDIX

APPENDIX

Organigramm
Organization Chart

Managing Director (2001-2002)
Prof. Dr. Dr. h. c. Markus Antonietti

Department of Colloid Chemistry
Director: Prof. Markus Antonietti · Secretary: Annette Pape

Heterophase Polymerization
- Miniemulsions/Dr. Katharina Landfester
- Heterophase Polymerization/Dr. Klaus Tauer

Polyelectrolytes and their Complexes
- Ionic Self-Assembly: Facile Route for the Production of Functional Nanostructured Materials/Dr. Charl F. J. Faul

Amphiphilic Polymers
- Bioorganic -Synthetic Hybrid Polymers as Molecular LEGO®-Bricks/Dr. Hans G. Börner
- Biomimetic Mineralization/Dr. Helmut Cölfen
- Amphiphilic Block Copolymers/Dr. Helmut Schlaad

Mesoporous Materials by Nanocasting and Nanocoating
- Porous Materials via Nanocasting Procedures: Innovative Materials and learning about Softmatter Organization/Prof. Markus Antonietti
- Templating Strategies to Fabricate Controlled Morphology Networks/Dr. Rachel A. Caruso

Modern Techniques of Colloid Analysis
- Fractionating Colloid Analysis/Dr. Helmut Cölfen
- Electron Microscopic Studies of Colloidal Systems/Dr. Jürgen Hartmann
- Gel Permeation Chromatography (GPC), Static Light Scattering (SLS)/Dr. Gudrun Rother
- Modern Methods of Light Scattering/Dr. Reinhard Sigel

Independent Research Group Surfactant Adsorption Layers
- Adsorption Properties of Surfactants at Fluid and Solid Interfaces/Dr. Klaus Lunkenheimer

Department of Interfaces
Director: Prof. Helmuth Möhwald · Secretary: Karin Kreßler

(Quasi) Planar Interfaces-Fluid Interfaces
- Interactions in Complex Monolayers/Dr. Gerald Brezesinski
- Analysis – Synthesis – Purification of Amphiphiles /Dr. Gunther Czichocki
- Static and Dynamic Peculiarities of twodimensional Systems (Langmuir Monolayers)/Dr. Thomas M. Fischer
- Thermodynamics, Kinetics and Dilational Rheology of Interfacial Layers/Dr. Reinhard Miller
- Molecular Organization in Soluble Monolayers and Functional Films/Dr. Hubert Motschmann
- Thin Liquid Films/Dr. Hans-Joachim Müller
- Supramolecular Organization of Amphiphilic Monolayers/Prof. Dieter Vollhardt
- Rheologial Properties of Fluid Interfaces/Dr. Klaus-Dieter Wantke

Non-Planar Interfaces
- Nanostructured Interfaces and Materials/Prof. Frank Caruso
- Mechanics and Adhesion of Capsules and Strongly Deformable Colloids/Dr. Andreas Fery
- Modular Materials: From Dynamic to Nanotechnological Devices/Dr. Dirk G. Kurth
- Bioinspired Control of Electrical and Optical Properties of Interfaces/Prof. Helmuth Möhwald
- Dynamics of Complex Polymer Layers/Dr. Monika Schönhoff
- Multifunctional Polymeric Micro- and Nanosized Capsules/Dr. Gleb Sukhorukhov

Solid Interfaces
- Nucleation, Interfacial Molecular Ordering and Wetting Behavior of Alkanes at Solid/Vapor Interfaces/Dr. Hans Riegler

International Joint Laboratory
- Assembly by Complex and Biomimetic Materials/Prof. Junbai Li

Service NMR Spectroscopy
Dr. Monika Schönhoff

Department of Theory
Director: Prof. Reinhard Lipowsky · Secretary: Gudrun Conrad

- Wetting Phenomena at Structured Surfaces/Prof. Reinhard Lipowsky
- Wetting Transitions of Hydrocarbons on Water/Dr. Wilhelm Fenzl
- Mesoscopic Simulations of Biomimetic Membranes/Dr. Julian C. Shillcock
- Giant Vesicles – Helping us to Understand Biological Membranes/Dr. Rumiana Dimova
- New Membrane Physics with Polymersomes/Dr. Hans-Günther Döbereiner
- Emmy Noether Junior Research Group/Dr. Ulrich Schwarz
- Adhesion Behavior of Vesicles at Finite Temperature/Dr. Thomas Gruhn
- Membrane Adhesion/Dr. Thomas Weikl
- Protein Folding Kinetics/Dr. Thomas Weikl
- Polyelectrolytes/Dr. Christian Seidel
- Semiflexible Polymers and Filaments/Dr. Jan Kierfeld
- Molecular Motors and Active Systems/Prof. Reinhard Lipowsky
- Theoretical Evolutionary Ecology/Dr. Angelo Valleriani

Administration/OtherServices
Head: Reina Schlender · Secretary: Rita Heine

Budgeting/Accountancy
Thea Dumke, Karin Schönfeld

Personnel
Gisela Gutjahr, Gudrun Patz

Procurement/Purchase
Sylvia Ost, Marianne Schulz

Other Services
Peter Quasdorf, Bodo Ryschka

IT-Service Group
Head: Dr. Ingolf Müller
Thomas Baumann,
Michael Born, Ingo Fiedler,
Hans-Jürgen Schanze

Library
Head: Dorothea Stscherbina
Silke Niehaus-Weingärtner

Drawing and Photography
Christine Steininger

Public Relations
Katja Schulze

Works Council
Peter Ebert

Mechanic Workshop
Heads: Günter Haseloff,
Wolfgang Katz
Andreas Kretzschmar,
Wolfgang Nierenz

Electronic Workshop
Head: Peter Ebert
Henryk Pitas, Monika Scholz,
Wolfgang Stein

Glass Blowing Workshop
Cliff Janiszewski

Campus Technics
Head: Heiko Jung
Hagen Hannemann, Dirk Nast,
Heinz Schmidt, Thomas Vogt

Caretaker
Peter Westermeier

Fachbeirat
Scientific Advisory Board

Name	Institution
Prof. Ruth Duncan	Welsh School of Pharmacy, Cardiff University
Prof. Gerhard D. Findenegg	Institut für Chemie, Technische Universität Berlin
Prof. Michael Grunze	Lehrstuhl für Angewandte Physikalische Chemie, Ruprecht-Karls-Universität Heidelberg
Dr. Rüdiger Iden	Polymer Physics, BASF Aktiengesellschaft
Prof. Michael Klein	Department of Chemistry, University of Pennsylvania/Philadelphia
Prof. Toyoki Kunitake	The University of Kitakyushu, RIKEN Institute
Prof. Dominique Langevin	Laboratoire de Physique des Solides UMPR C8502, Université Paris Sud
Dr. Wolfgang von Rybinski	Henkel KGaA
Prof. Erich Sackmann	Physik Department E 22, Technische Universität München
Prof. Michael Schick	Department of Physics, University of Washington

Drittmittelprojekte
Third Party Funds

BMBF

Zuwendungs-geber	Thema	Projektleiter	Bewilligungszeitraum	Zusammenarbeit mit
BMBF	Funktionale supramolekulare Systeme-Untersuchung von Wechselwirkungskräften und Adsorptionsverhalten bei Polyelektrolytmolekülen sowie deren Filmbildung auf molekularer Skala	Prof. Möhwald Dr. Akari GF	01.05.1999-31.12.2002	BASF AG Uni Greifswald
BMBF	Funktionale supramolekulare System-Herstellung, Charakterisierung und Nutzung von kompartimentierten dreidimensionalen Polyelektrolytnanofilmen mit kontrollierter Selbstassemblierung	Prof. Möhwald Dr. Donath GF	01.06.1999-31.08.2002	Uni Leipzig Institut f. Transfusionsmedizin Berlin Microparticles GmbH Mediport Kardiotechnik GmbH Berlin
BMBF	BioFuture:Nanofabrikation neuartiger biofunktioneller Materialien und Bioverkapselung	Dr. F. Caruso GF	01.11.1999-31.10.2004	
BMBF	Polyoxometallate in maßgeschneiderten Amphiphilhüllen: Neuartige Wege zum selbstorganisierten Aufbau supramolekularer Funktionseinheiten	Dr. Kurth GF	01.04.2000-30.09.2001	Uni Bielefeld, Fakultät AC1
BMBF	Selbststrukturierende organisch-anorganische Hybridnanopartikel auf der Basis von amphiphilen Blockcopolymeren und Charakterisierung des Bildungsmechanismus ihrer Überstrukturen	Dr. Cölfen KC	01.04.2001-31.03.2004	Forschungszentrum Jülich GmbH
BMBF	Weiterentwicklung und Betrieb der Messstrecken A" und BW4 für Kleinwinkelstreuung am HASYLAB (DESY)	Dr. Fenzl GF/TH	01.04.2001-31.03.2004	
BMBF	Nanobiotechnologie-Verbundprojekt: Multifunktionale künstliche Zellen als Transporter, Sensoren und Nanoreaktoren	Dr. Sukhorukov GF	01.05.2002-30.04.2005	Uni Leipzig Capsolution Nanoscience AG
BMBF	Polymere Haftvermittler zur Verbesserung der Eigenschaften funktionaler Papiere	Dr. Riegler GF	01.04.2002-31.03.2005	SCA Hygiene Products GmbH Fraunhofer-Gesellschaft f. Angewandte Forschung e.V. Capsolution Nanoscience AG
DLR	Finanzierung der Reise- und Aufenthaltsausgaben für die Durchführung des "microgravity" Experiments- Reflight of FAST- im Rahmen der Shuttle Mission STS 107	Dr. Miller GF	01.09.2000-30.06.2003	
BMWi	INNOvationskompetenz mittelständischer Unternehmen: Ausarbeitung der konzeptionellen Idee und Testung der Entwicklungsstufen zur Entwicklung eines allgemein anwendbaren Gerätes zur Bestimmung der physiko-chemischen Stabilitätsparameter von Schaum...	Dr. Lunkenheimer UG	06.03.2002-30.06.2004	GIT Gesellschaft für innovative Technologie mbH
BAM(BMWi)	Nationale Tensid-Referenznormale	Dr. Lunkenheimer UG	01.11.2002-28.02.2003	

GF – Abteilung Grenzflächen/Department of Interfaces
KC – Abteilung Kolloidchemie/Department of Colloid Chemistry
TH – Abteilung Theorie/Department of Theory
UG –Unabhängige Gruppe/Independent Research Group

Sonderforschungsbereiche (SFB 448)

Zuwendungs-geber	Thema	Projektleiter	Bewilligungszeitraum	Zusammenarbeit mit
DFG/TU Bln.	Mesoskopisch strukturierte Verbundsysteme; Biomimetische Mineralisation mit amphiphilen Blockcopolymeren	Dr. Cölfen KC	01.01.1998-	
DFG/TU Bln.	Mesoskopisch strukturierte Verbundsysteme; Synthese und Untersuchung des Assoziations-verhaltens von neuen linearen und verzweigten amphiphilenBlockcopolymeren	Dr. Schlaad KC	01.01.1998-	
DFG/TU Bln.	Mesoskopisch strukturierte Verbundsysteme; Phasenverhalten reiner Stoffe und binärer Mischungen in geordneten mesoporösen Materialien	Prof. Antonietti KC	01.01.1998-	
DFG/TU Bln.	Mesoskopisch strukturierte Verbundsysteme; Wechselwirkung von Nanopartikeln und Membran	Prof. Lipowsky Dr. Döbereiner TH	01.01.1998-	
DFG/TU Bln.	Mesoskopisch strukturierte Verbundsysteme; Elektonentransferreaktionen in Materialien mit Polaritätsgradienten	Prof. Möhwald GF	01.01.1998-	Uni Potsdam
DFG/TU Bln.	Mesoskopisch strukturierte Verbundsysteme; Hierarchische Architekturen aus Modulen mit metallosupramolekularen Koordinations-Polyelektrolyten	Dr. Kurth GF	01.01.2001-	

Industrie, nicht öffentliche Zuwendungsgeber

Roche (BMBF)	Herstellung und Charakterisierung von Hybrid-Nanopartikeln für bioanalytische Anwendungen	Prof. Antonietti Dr. Landfester KC	01.04.1999-31.03.2002	
Bayer AG	Untersuchung des Adsorptionsverhaltens von Dispergierhilfsmitteln auf Oberflächen von organischen Feststoffteilchen	Dr.Miller Dr. Lunkenheimer GF/UG	01.07.2000-30.06.2003	
Henkel KG	Delivery Systems-Untersuchung von Polymerisations- und Verkapselungsverfahren in Miniemulsion, Charakterisierung der Eigenschaften der enthaltenen Polymerpartikel	Prof. Antonietti KC	01.03.2000-01.03.2002	
BASF AG	Schaltbare Wirkstoff-Freisetzung durch Polyelektrolyt-Verkapselung	Dr. Donath GF	01.11.2000-30.09.2001	
BASF AG	Aufklärung von Reaktionsmechanismen bei Polymerisationsreaktionen	Prof. Antonietti KC	01.01.2000-31.12.2001	
BASF AG	Polyurethandispersionen via Mini-Emulsionspolymerisation	Dr. Landfester KC	1.12.2000-30.11.2003	
BASF AG	Entwicklung neuer Detektionstechniken für die Analytische Ultrazentrifugation	Dr. Cölfen KC	01.12-2001-30.11.2004	

Industrie, nicht öffentliche Zuwendungsgeber

Zuwendungs-geber	Thema	Projektleiter	Bewilligungszeitraum	Zusammenarbeit mit
8sens.bio-gnostic AG	Nanoverkapselte Enzymkristalle für Affinitätstests	Dr. F. Caruso GF	01.11.01-31.10.2003	
HMI Bln.GmbH	Wissenschaftliche und technische Zusammen-arbeit auf dem Gebiet der Untersuchung von Oberflächen und dünnen Schichten mit Neutronenstreuung	Prof. Möhwald GF	01.01.1999-31.12.2004	
Mitsubishi	Surface control by functional polymers	Prof. Antonietti Dr. Landfester KC	01.03.2002-28.02.2003	
Lòreal	Nanocapsules and the encapsulation of lipophilic and hydrophilic molecules in particles composed of polyester ...	Prof. Antonietti KC	1.8.2002-31.07.2003	
AT&S	Kontrollierte Herstellung von Dispersionen leitfähiger Materialien	Prof. Antonietti Dr. Landfester KC	01.06.2002-31.05.2003	

EU/ESA

EU	Structure, phase behaviour and properties of floating and transferred Langmuir monolayers and self-organized Multilayers of new mesophase silicon polymers	Prof. Möhwald GF	01.12.1998-30.11.2001	Riso National Laboratory, Roskilde State Scientific Center of Russia, Moskau Institute of Organoelement Compounds RAS, Moskau Institute of Physics, Kiew
EU	Nanocapsules with functionalized surfaces and walls	Prof. Möhwald GF	01.09.2000-31.08.2004	CNRS Toulouse EPFL - Dept. Chimie LCPPM, Lausanne ICFAM Genua Advanced Drug Delivery Technologies AG Muttenz Nimbus Biotechnologie GmbH Leipzig Faculdade Engenharia da Universidade do Porto, Porto Universität für Bodenkultur, Wien
EU	Polymerizable and polymeric surfactants in emulsion polymerization for water-borne coatings	Dr. Tauer KC	01.12.1997-28.02.2001	CNRS Villeurbanne Technische Universität Eindhoven Institute of Surface Chemistry AKCROS Chemicals AKZO-Nobel Resins AKZO-Nobel Coatings Vinamul, SCA GRAPHIC Reserche University of Riga

EU/ESA

Zuwendungs-geber	Thema	Projektleiter	Bewilligungszeitraum	Zusammenarbeit mit
ESA/ESTEC	Topical Team: Progress in emulsion science and technology	Dr. Miller GF	01.03.2000-01.03.2002	Uni Aix-Marseille Uni Compiegne ICFAM Genua
ESA/ESTEC	FASES – Fundamental and applied studies of emulsion stability	Dr. Miller GF	01.10.2000-31.12.2002	ICFAM Genua Uni Florenz Uni Marseille Uni Compiegne ENITecnologie S. Donata Milanese

Stiftungen

A.v.H.	Sofja Kovalevskaja Preis – Dr. Sukhorukov	Dr. Sukhorukov GF	01.12.2001-28.02.2005	
Zeitstiftung	Nanochemie für eine zukünftige Automobiltechnik	Prof. Antonietti KC	01.01.2001-31.12.2003	MPI Chemische Physik fester Stoffe MPI FHI MPI für Kohleforschung
VW-Stiftung	Tunable Selfassembled 2D and 3D photonic band-gap structures for applications in the visible optic, infrared and mm-wave ranges	Prof. Möhwald Dr. F. Caruso GF	01.03.2000-28.02.2003	Hebrew University of Jerusalem
VW-Stiftung	Polyoxometalate clusters in self-assembling hierarchical architectures: from discrete nano-scopic structures to extended liquid crystalline mesophases	Dr. Kurth	01.09.2002-31.08.2005	Uni Bielefeld Humboldt-Uni Berlin
VW-Stiftung	Biocomposite capsules as artificial viruses	Dr. Brezesinski GF	Beginn 01.03.2003	Uni Leipzig Uni Bochum

DAAD

DAAD	Projektbezogener Personenaustausch mit Großbritannien	Dr. Kurth GF	01.07.2000-30.06.2002	
DAAD	Projektbezogener Personenaustausch mit Frankreich	Dr. Brezesinski GF	01.01.2001-31.12.2002	
DAAD	Projektbezogener Personenaustausch mit Hongkong	Dr. Caruso GF	01.01.2000-31.12.2001	
DAAD	Projektbezogener Personenaustausch mit Frankreich	Dr. Döbereiner TH	01.01.2001-31.12.2001	

DFG
(ad personam)

Zuwendungs-geber	Thema	Projektleiter	Bewilligungszeitraum	Zusammenarbeit mit
DFG	Einfluss der Monoschichtstruktur einfacher und komplexer Phospolipidsysteme auf ihre Wechselwirkung mit Phospholipasen	Dr. Brezesinski GF	01.01.2000-31.12.2001	
DFG	Amyloidprotein-Lipid-Wechselwirkungen an Grenzflächen	Dr. Brezesinski GF	01.09.2000-31.08.2002	
DFG	Magnetische Eigenschaften, Strukturbildung und Synthese von Submikrometer magnetischen Hohlkugeln	Dr. F. Caruso GF	01.12.2001-31.05.2003	
DFG	Photonic Crystals from Coated Colloids	Dr. F. Caruso GF	01.08.2001-31.07.2003	
DFG	Kombination von Reflektions-Interferenz-Kontrast-Mikroskopie mit kraftmikroskopischen Methoden zur Untersuchung von Adhäsion und mechanischen Eigenschaften von Polyelektrolyt-Hohlkörpern	Dr. Fery GF		
DFG	Umorientierungsprozesse in hexatischen Langmuir-Monolayer-Phasen unter dem Einfluss lokaler Temperaturgradienten	Dr. Fischer GF	01.01.2000-31.12.2001	
DFG	Tripelpunktbenetzung in zweidimensionalen dipolaren Langmuir Filmen	Dr. Fischer GF	01.05.2000-31.08.2002	
DFG	Enzymatisch gesteuerte Benetzungsübergänge in zweidimensionalen dipolaren Langmuir-Filmen	Dr. Fischer GF	01.09.2002-31.08.2004	
DFG	Dünne metallosupramolekulare Polyelektrolytfilme	Dr. Kurth GF	01.09.2000-30.11.2002	
DFG	Untersuchung und Charakterisierung supramolekularer Aggregate	Dr. Kurth GF	01.12.2002-30.11.2004	
DFG	Oberflächenrheologische Charakterisierung von Schichten aus pulmonalen Surfactant bei Dilatation an Phasengrenzen zwischen einer wässrigen Lösung und unterschiedlichen Gasen	Dr. Miller GF	01.01.2000-31.12.2001	
DFG	Molekulare Orientierung und Aggregation von Tensiden an Grenzflächen zwischen zwei Flüssigkeiten	Dr. Miller GF	01.10.2001-30.09.2002	
DFG	Molekulare Orientierung und Aggregation von Tensiden an Grenzflächen zwischen zwei Flüssigkeiten	Dr. Miller GF	01.10.2002-30.09.2004	
DFG	Kopplung und Molekültransport an der Grenze Polyelektrolyt/Tensid	Prof. Möhwald GF	01.02.2000-31.07.2001	
DFG	Interactions of Bio-Polymers and Lipids in Layered Structures	Prof. Möhwald GF	01.08.2001-31.07.2003	

DFG (ad personam)

Zuwendungs-geber	Thema	Projektleiter	Bewilligungszeitraum	Zusammenarbeit mit
DFG	Interactions of Bio-Polymers and Lipids in Layered Structures	Prof. Möhwald GF	2001-2004	
DFG	Untersuchung der Gas-Permeation durch Schaumfilme	Dr. Müller GF	01.07.1999-31.08.2001	
DFG	Untersuchung der Gas-Permeation durch Schaumfilme	Dr. Müller GF	01.09.2001-31.08.2002	
DFG	Der Zusammenhang zwischen der Stabilität von Schäumen und Emulsionen und der Änderung der freien Energie bei der Bildung dünner Flüssigkeitsfilme	Dr. Müller GF	01.11.2000-31.05.2003	
DFG	Zusammenhang zwischen lokaler molekularer Ordnung an Grenzflächen und deren Benetzungsverhalten	Dr. Riegler GF	01.04.2000-31.03.2002	
DFG	Bildung zwei-dimensionaler hochorganisierter Strukturen auf Basis komplementärer Wasserstoffbrückenbindungen durch molekular-spezifische Erkennung	Prof. Vollhardt GF	26.11.2001-31.12.2003	
DFG	Auto-Oszillationen der Oberflächenspannung: Mechanismus und Wirkungsprinzipien eines neuartigen selbstorganisierenden dissipativen Systems	Prof. Vollhardt GF	15.05.2001-04.05.2003	
DFG	Der Einfluss molekularer Austauschvorgänge auf das rheologische Verhalten flüssiger Grenzflächen	Dr. Wantke GF	01.05.2000-30.04.2001	
DFG	Polyelektrolytkomplexe als Trägersysteme	Dr. Dautzenberg KC	01.04.2000-31.03.2002	
DFG	Controlled Radical Polymerization	Dr. Tauer KC	01.11.2002-31.10.2004	
DFG	Kolloidale magnetische Flüssigkeiten: Grundlagen, Entwicklung und Anwendung neuartiger Ferrofluide	Dr. Landfester KC	15.07.2000-14.07.2001	
DFG	Kolloidale magnetische Flüssigkeiten: Grundlagen, Entwicklung und Anwendung neuartiger Ferrofluide	Dr. Landfester KC	15.07.2001-26.04.2003	
DFG	Biokompatible magnetische Partikel: Herstellung und Charakterisierung polymerverkapselter, super-paramagnetischer Nanopartikel	Dr. Landfester KC	01.08.2002-	
DFG	Fluktuierende Riesenvesikel als morphologische Sonden zur Untersuchung der Materialeigen-schaften amphiphiler Membranen und ihrer Wechselwirkung mit biologischen Makromolekülen	Dr. Döbereiner TH	01.05.2001-30.042003	

DFG
(ad personam)

Zuwendungs-geber	Thema	Projektleiter	Bewilligungszeitraum	Zusammenarbeit mit
DFG	Benetzung und Strukturbildung an Grenzflächen	Prof. Lipowsky TH	01.10.1999-30.09.2001	
DFG	Be- und Entnetzung an lateral strukturierten Grenzflächen	Prof. Lipowsky TH	01.05.2001-30.06.2002	
DFG	Adhäsion von Vesikeln an lateral strukturierten Grenzflächen	Prof. Lipowsky TH	01.05.2002-30.04.2004	
DFG	Schwache und starke Polyelektrolyte an dielektrischen Grenzflächen	Dr. Netz TH	15.01.2001-14.01.2002	
DFG	Simulation von an einer Fest-Flüssig-Grenzfläche verankerten Polyelektrolytketten bei expliziter Behandlung von Gegen- und Salzionen	Dr. Seidel TH	01.08.2001-31.07.2003	
DFG	Emmy-Noether-Programm: Modelling forces and signalling in cell adhesion – Nachwuchsgruppe	Dr. U. Schwarz TH	01.11.2001-31.10.2003	
DFG	Emmy-Noether-Programm: Bioorganische und biometrische Polymere: Synthese, Charakterisierung und Anwendung der Polymerhybridsysteme – Nachwuchsgruppe	Dr. H. Börner KC	Beginn 02/2003	

Wissenschaftliche Veranstaltungen
Scientific Events

Seminars

Mineralisation Seminars

- The Chemistry of Form, Dr. H. Cölfen, MPIKG – 20.04.2001
- Nucleation Theory, Dr. habil. K. Tauer, MPIKG - 04.05.2001
- Processing of Advanced Inorganic Nanomaterials, S.-H. Yu, MPIKG - 18.05.2001
- Critical Crystal Nuclei, G. Lucas, MPIKG - 13.07.2001
- Electrical Conductivity and Piezoelectricity in Iron Collagen Films, V. Neto, MPIKG - 27.07.2001
- Dissipative Particle Dynamics, Dr. J. Shillcock, MPIKG - 21.09.2001
- Electron Microscopic Characterization of Colloidal Crystals, Dr. J. Hartmann, MPIKG - 05.10.2001
- Characterization of Minerals Using XRD Techniques, B. Smarsly, MPIKG - 16.11.2001
- Biomineralization, P. Kasparova, 30.11.2001
- The Structure of Water, Dr. Y. Mastai, MPIKG - 14.12.2001
- Atomic Force Microscopy, Dr. A. Fery, MPIKG - 11.01.2002

Membrane Seminar

- Thermal Behavior of the Anionic Phospholipid DMPG, Dr. K. Riske, MPIKG - 25.10.2001

Colloquia:

MPI Colloquia

- Konjugierte Emitterstrukturen für organische elektronische Bauelemente, Prof. U. Scherf, Universität Potsdam, Polymerchemie - 23.01.2001
- Thermodynamik und Kinetik der Wechselwirkung von Detergentien mit Membranen, Prof. A. Blume, Phys. Chemie, Universität Halle - 06.02.2001
- Layered Structure of Liquids at the Solid-Liquid Interface, Prof. H.-J. Butt, Universität Siegen - 24.04.2001
- Nanostrukturierte Hydrogele, ultradünne Filme und Nanoreaktoren aus amphiphilen Blockcopolymeren, PD Dr. W. Meier, Universität Basel - 08.05.2001
- Formation and Reactivity of Metal and Semiconductor Nanoparticles in Silica Thin Films and Nanotubes, Prof. M. Wark, Universität Bremen - 05.06.2001
- Using Heads as Feet to Walk Hand-over-Hand, Molecular Dynamics of the Kinesin Motor, Prof. M. Schliwa, Universität München - 12.06.2001
- Annual Meeting Colloidal and Interfacial Science, Researchers from the MPIKG and Alumnis - 15.06.2001
- Kinetics of Surfactant Adsorption at Liquid Interfaces and their Dynamic Surface Tension, Prof. D. Andelman, Tel Aviv University - 26.06.2001
- Inorganic Nanotubes and Inorganic Fullerene-like Materials from Layered Compounds", Prof. R. Tenne, Weizmann Institute of Science, Rehovot, Israel - 24.07.2001
- Mesa Topography of Surfactant Monolayers, Prof. T. Witten, University Chicago - 17.08.2001
- Polyelectrolyte Complexation and Multilayer Formation, Prof. J.-F. Joanny, Institut Curie Paris - 11.09.2001
- Physics in Cell Biology: F-Actin as a Model System for Semiflexible Polymers", Prof. E. Frey, Hahn-Meitner Institut, Berlin - 23.10.2001
- How Kinesin Couples ATP Hydrolysis to Motion along Microtubules: Theory and Experiment, Prof. J. Howard, Max Planck Institute of Molecular Cell Biology and Genetics, Dresden - 04.12.2001
- Block Copolymer Surface Physics, Prof. G. Krausch, Universität Bayreuth - 06.12.2001
- AFM-Force Spectroscopy: From the Manipulation of Single Polymer Chains to the Development of Nanoscopic Machines, Dr. M. Seitz, Lehrstuhl für Angewandte Physik, LMU München - 12.12.2001
- Applied Biomimetics in Cooling Technology, Dr. T. Zwieg, Danish Technology Institute and TU Dresden - 15.01.2002
- Polyelectrolyte Complexes: What Kind of Matter is that?, Prof. M. A. Cohen Stuart, Laboratory of Physical Chemistry and Colloid Science, Wageningen University, Netherlands - 05.02.2002
- Transport in Biological Systems", Prof. A. Ott, Universität Bayreuth - 19.02.2002
- Production of Force and Movement by Polymerization of Actin: Mechanism and Reconstitution in Vitro, Prof. M.-F. Carlier, CNRS Gif-sur-Yvette, France - 11.03.2002
- The Lego of Life: Microtubules as Dynamical Building Blocks of the Cytoskeleton", Prof. B. Mulder, FOM Institute for Atomic and Molecular Physics, Amsterdam - 16.04.2002

- Cell Adhesion on Protein-Coated Micro-Patterned Substrates", Prof. M. Bastmeyer, Universität Jena - 30.04.2002
- Dendrimer Controlled Crystallization Processes, Dr. N. A. J. M. Sommerdijk, Eindhoven University of Technology, Netherlands - 12.11.2002
- Industrielle Aspekte der Emulsionspolymerization, Dr. D. Distler, Abteilungsdirektor BASF AG – 26.11.200

Colloquia SFB 448

- Grosse Moleküle mit Funktion, S. Hecht, University of California at Berkeley - 17.04.2001
- Neue amphiphile Nanoobjekte: Janus-Micellen und Kern-Schale-Zylinder, Prof. A. Müller, Universität Bayreuth - 29.05.2001
- Nanoporoese Membranen durch Kolloid-Abformung, Dr. W. Goedel, Universität Ulm - 29.05.2001
- Controlled Synthesis of (Nano) Structured Materials, Dr. H. Börner, Carnegie Mellon University, Pittsburgh - 08.06.2001
- Characterization of Novel Materials and Nanostructures, Dr. J. Rice, CNRS, Orsay - 08.06.2001
- Modelling Relaxation Processes in Polyenes, Dr. C. Woywod, TU München - 08.06.2001
- Femtosekunden Ladungstransfer und Kontrolle der Adiabatizitaet in pyrenhaltigen substituierten Biphenylen, Dr. T. Fiebig, Universität München - 12.06.2001
- Self-Assembled Monolayers of Rigid Biphenyl Thiols: Structure and Applications, Prof. A. Ulman, Polytechnical University New York - 19.06.2001
- Mesostrukturierte Festkörper mit neuartigen Symmetrieeigenschaften, Dr. F. Marlow, MPI für Kohlenforschung, Mühlheim - 17.07.2001
- Polymere und Licht: Photonische Kristalle ausgehend von Polymeren, Prof. R. Zentel, Institut für Organische Chemie, Universität Mainz- 17.07.2001
- Mesoskopisch strukturierte Polymeroberflächen, Dr. P. Müller-Buschbaum, TU München - 29.01.2002
- Erzeugung von nanostrukturierten Oberflächen mit Polymeren, Prof. M. Stamm, Institut für Polymerforschung Dresden - 30.04.2002
- NMR-Untersuchungen von Gastmolekuelen in mesoporoesen Silikaten, Dr. habil. G. Buntkowsky, Insitut für Chemie, FU Berlin - 30.04.2002
- Komplexe Nanostrukturen in dünnen Blockcopolymerfilmen, Prof. G. Krausch, Universität Bayreuth - 28.05.2002
- Diblockcopolymer-Mesophasen durch Beta-Strukturierung und spezifische Wechselwirkungen, Dr. H. Schlaad, MPIKG - 28.05.2002
- Supramolecular Polymeric Architectures, Prof. E. W. Meijer, Eindhoven University, Netherlands - 18.06.2002
- Mehr-Schritt-Elektron-Transfer in Farbstoff-Dendrimer-Gerüsten, Prof. W. Rettig, HU Berlin - 29.10.2002
- Lokale Dynamik von Netzwerken und Grenzflächen in kolloidalen Systemen, Dr. T. Hellweg, TU Berlin - 29.10.2002
- Mesoskopisch strukturierte Farbstoff-, Farbstoff/Tensid- und Farbstoff/Polyelektrolyt-Aggregate, Dr. S. Kirstein, HU Berlin - 29.10.2002

Biomimetic Colloquia

- Opening Symposium IMPRS Biomimetic Systems, Prof. R. Lipowsky, Prof. F. Scheller, Prof. P. Janmey, Prof. A. Khokhlov, Prof. P. Fratzl, Prof. Z. Ou-Yang and Prof. S. Mann - 27.04.2001
- Lipid Rafts in Model and Biological Membranes", Prof. K. Jacobson, University of North Carolina at Chapel Hill, Dept. of Cell Biology - 23.11.2001
- IMPRS Symposium on Biomimetic Systems – 14./15.10.2002

Special Colloquia

- Colloquium to the Birthday of Prof. G. Kretzschmar – 22.11.2002 in the Institute

Workshops

- Workshop der Kraftspektroskopie im pN Bereich mittels AFM.- 09.10.2002

Wissenschaftliche Abschlüsse und Preise
Degrees and Awards

Department of Colloid Chemistry

Diploma Theses

Nozari, S.: Joint Nucleation of Organic/Inorganic Nanoparticles. Potsdam 2002.

PhD Theses

General, S.: Polyelektrolyt-Tensid-Komplexe – nanostrukturierte biomimetische Arzneistoffträger. Berlin 2001.

Kasparova, P.: Doppelthydrophile Blockcopolymere als Mineralisationstemplate. Potsdam 2002.

Khrenov, V.: Anwendung der Heterophasen-Polymerisation und CeIV Chemie zur Syntese von Blockcopolymeren. Potsdam 2002.

Kukula, H.: Lineare und verzweigte Blockcopolymere aus Polypeptiden und synthetischen Polymeren. Potsdam 2001.

Padtberg, K.: On-line Verfolgung von Nukleierungsprozessen. Potsdam 2002

Polarz, S.: Konzepte zur Nanochemie auf der Basis von porösen Materialien. Potsdam 2001.

Rudloff, J.: Doppelthydrophile Blockcopolymere: Synthese und Einsatz in der biomimetischen Morphosynthese von $CaCO_3$. Potsdam 2001.

Schattka, J. H.: Synthese poröser Metalloxidstrukturen durch Template Nanocoating. Potsdam 2002

Schrage, S.: Selbstorganisation von Ionomeren zu phasenseparierten Vesikeln. Potsdam 2002.

Smarsly, B.: Charakterisierung poröser Materialien mit Methoden der Kleinwinkelstreuung. Potsdam 2001.

Tiarks, F.: Neue Strukturen und Synthesen durch die Miniemulsionspolymerisation: Polyaddition, Nanokapseln und Hybridpartikel. Potsdam 2001.

Viala, S.: Kontrollierte radikalische Heterophasenpolymerisation mit Anwesenheit des Diphenylethylens. Potsdam 2002.

Willert, M.: Prinzipien und Anwendungsmöglichkeiten nichtwässriger und inverser Miniemulsionen. Potsdam 2001.

Zintchenko, A.: Poyleketrolytkomplexbildung mit doppelthydrophilen Blockcopolymeren. Potsdam 2002.

Habilitations

Cölfen, H.: Biomimetic Mineralisation Using Hydrophilic Copolymers: Synthesis of Hybrid Colloids with Complex Form and Pathways towards their Analysis in Solution. Potsdam 2001.

Thünemann, A. F.: Self-Assembly, Ordered Nanostructures and Functionality of Polyelectrolyte-Amphiphile Complexes. Potsdam 2001.

Landfester, K.: Miniemulsions for Polymerization Processes and Materials Science. Potsdam 2002.

Awards

Landfester, K.: Habilitandenpreis der Fachgruppe Makromolekulare Chemie der GdCh (2001)

Landfester, K.: Hermann Schnell Preis (2001)

Department of Interfaces

Diploma Theses

Bodenthin, Y.: Struktur dünner Filme aus metallo-supramolekularen Modulen. Universität Potsdam 2002.

Kölsch, P.: Ionenverteilung an Grenzflächen. Potsdam 2002.

PhD Theses

Johann, R.: Thermodynamic, Morphological and Structural Properties of Dissociated Fatty Acid Monolayers at the Air-Water Interface. Potsdam 2001.

Krasteva, N.: Influence of Soluble Sugars and DMSO on Interactions and Phase Behavior of Phospholipid Monolayers, Thin Foam Films and Bilayer Dispersions. Potsdam 2001.

Lauter, R.: Struktur von Monoschichten bipolarer Amphiphile an der Wasser-Luft Grenzfläche. Potsdam 2001.

Lesser, C.: Lumineszierende Filme durch alternierende Adsorption von CdTe-Nanopartikeln und Polyelektrolyten. Potsdam 2002.

Moya, S.: Architecture, Permeability, Electrical and Mechanical Properties of Polyelectrolyte Lipid Composite Capsules. Potsdam 2001.

Radüge, C.: Der Mechanismus des Benetzungsschaltens von Azobenzol-modifizierten Oberflächen. Potsdam 2001.

Schneider, M.: Untersuchung von Wechselwirkungskräften und dem Adsorptionsverhalten von Polyelektrolytmolekülen auf Nanometer-Skala. Potsdam 2002.

Schüler, C.: Mikro- und Nanokapseln aus Funktionspolymeren, Biopolymeren und Proteinen. Potsdam 2001.

Schwarz, B.: NMR Spektroskopie an Polyelektrolyt Mono- und Multischicht-Systemen. Potsdam 2002

Steffen, P.: Rheologie und Benetzung in Langmir-Filmen auf Mikrometerskala. Potsdam 2001.

Teppner, R.: Adsorptionschichten an fluiden Grenzflächen: Skalengesetze und Ionenverteilungen. Potsdam 2001.

Awards

Caruso, F.: Federation Award (2001)

Möhwald, H.: Lectureship Award of the Japanese Colloid Society, Sendai (2002)

Möhwald, H.: Founder's Lecture, London (2002)

Möhwald, H.: Eli Burstein Lecture, Philadelphia (2002)

Sukhorukov, G.: Sofia Kovalevskaja Preis (2001)

Department of Theory

PhD Theses

Vogel, M.: Röntgenbeugung an hochorientierten Phospholipidmembranen. Potsdam 2001.

Kunze, K. K.: Electrostatic Organization of DNA. Potsdam 2001.

Moreira, A. G.: Charged Systems in Bulk and at Interfaces. Potsdam 2001.

Awards

Netz, R.: Karl-Scheel-Preis der Deutschen Physikalischen Gesellschaft zu Berlin (2001)

Schwarz, U.: Emmy-Noether-Preis der Deutschen Forschungsgemeinschaft (2001)

Wissenschaftliche Veröffentlichungen und Patente
Publications and Patents

Colloid Chemistry

Antonietti, M.: Surfactants for novel templating applications. Current Opinion in Colloid & Interface Science 6, 244-248 (2001).

Antonietti, M. and K. Landfester: Single molecule chemistry with polymers and colloids: A way to handle complex reactions and physical processes? Chemphyschem 2, 207-210 (2001).

Antonietti, M. and K. Landfester: Polyreactions in miniemulsions. Progress in Polymer Science 27, 689-757 (2002).

Antonietti, M. and K. Landfester: Polyreactions in Miniemulsions (review article). Progress in Polymer Science 27, 689-757 (2002).

Antonietti, M., K. Landfester and Y. Mastai: The vision of "Nanochemistry", or is there a promise for specific chemical reactions in nano-restricted environments? Israel Journal of Chemistry 41, 1-5 (2001).

Antonietti, M., A. Briel and F. Gröhn: Structure and viscosity of spherical polyelectrolyte microgels: A model for the polyelectrolye effect? In: Structure and Dynamics of Polymer and Colloidal Systems. (Ed.) R. Borsali and R. Pecora, NATO Science Series Series C: Mathematical and Physical Sciences, Vol. 568, Kluwer Academic Publishers, Dordrecht/Boston/London 2002, 363-415.

Antonietti, M., H. P. Hentze, B. Smarsly, M. Löffler and R. Morschhäuser: Structure characterization of surfactant assisted polymer thickeners by silica nanocasting. Macromolecular Materials and Engineering 287, 195-202 (2002).

Barraza, H. J., M. J. Hwa, K. Blakely, E. A. O'Rear and B. P. Grady: Wetting behavior of elastomer-modified glass fibers. Langmuir 17, 5288-5296 (2001).

Berth, G. and H. Dautzenberg: The degree of acetylation of chitosans and its effect on the chain conformation in aqueous solution. Carbohydrate Polymers 47, 39-51 (2002).

Berth, G., H. Cölfen and H. Dautzenberg: Physicochemical and chemical characterization of chitosan in dilute aqueous solution. Progress in Colloid and Polymer Science 119, 50-57 (2002).

Borchard, W., H. Cölfen, D. Kisters and A. Straatmann: Evidence for phase transitions of aqueous gelatin gels in a centrifugal field. Progress in Colloid and Polymer Science 119, 101-112 (2002).

Bronstein, L. M., S. Polarz, B. Smarsly and M. Antonietti: Sub-nanometer noble-metal particle host synthesis in porous silica monoliths. Advanced Materials 13, 1333-1336 (2001).

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Caruso, R. A., A. Susha and F. Caruso: Multilayered titania, silica, and Laponite nanoparticle coatings on polystyrene colloidal templates and resulting inorganic hollow spheres. Chemistry of Materials 13, 400-409 (2001).

Caruso, R. A., J. H. Schattka and A. Greiner: Titanium dioxide tubes from sol-gel coating of electrospun polymer fibers. Advanced Materials 13, 1577-1579 (2001).

Caruso, R. A., M. Antonietti, M. Giersig, H. P. Hentze and J. G. Jia: Modification of TiO_2 network structures using a polymer gel coating technique. Chemistry of Materials 13, 1114-1123 (2001).

Cölfen, H.: Double-hydrophilic block copolymers: synthesis and application as novel surfactants and crystal growth modifiers. Macromolecular Rapid Communications 22, 219-252 (2001).

Cölfen, H.: Biomimetic mineralisation using hydrophilic copolymers: Synthesis of hybrid colloids with complex form and pathways towards their analysis in solution. Potsdam 2001.

Cölfen, H. and L. M. Qi: A systematic examination of the morphogenesis of calcium carbonate in the presence of a double-hydrophilic block copolymer. Chemistry-a European Journal 7, 106-116 (2001).

Cölfen, H., G. Berth and H. Dautzenberg: Hydrodynamic studies on chitosans in aqueous solution. Carbohydrate Polymers 45, 373-383 (2001).

Cölfen, H., L. M. Qi, Y. Mastai and L. Börger: Formation of unusual 10-petal $BaSO_4$ structures in the presence of a polymeric additive. Crystal Growth & Design 2, 191-196 (2002).

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Dautzenberg, H. and W. Jaeger: Effect of charge density on the formation and salt stability of polyelectrolyte complexes. Macromolecular Chemistry and Physics 203, 2095-2102 (2002).

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Farrell, K. V. and B. P. Grady: Studies of cation local environment in sodium-neutralized ethylene copolymer ionomers. Macromolecules 34, 7108-7112 (2001).

Faul, C. F. J. and M. Antonietti: Facile synthesis of optically functional, highly organized nanostructures: Dye-surfactant complexes. Chemistry-a European Journal 8, 2764-2768 (2002).

Faul, C., M. Antonietti, R. Sanderson and H. P. Hentze: Directed polymerization in mesophases of polyelectrolyte- surfactant complexes. Langmuir 17, 2031-2035 (2001).

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Förster, S., B. Berton, H. P. Hentze, E. Krämer, M. Antonietti and P. Lindner: Lyotropic phase morphologies of amphiphilic block copolymers. Macromolecules 34, 4610-4623 (2001).

Frielinghaus, H., N. Hermsdorf, R. Sigel, K. Almdal, K. Mortensen, I. W. Hamley, L. Meese, L. Corvazier, A. J. Ryan, D. van Dusschoten, M. Wilhelm, G. Floudas and G. Fytas: Blends of AB/BC diblock copolymers with a large interaction parameter chi. Macromolecules 34, 4907-4916 (2001).

General, S.: Polyelektrolyt-Tensid-Komplexe - nanostrukturierte biomimetische Arzneistoffträger. Berlin 2001.

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General, S., J. Rudloff and A. F. Thünemann: Hollow nanoparticles via stepwise complexation and selective decomplexation of poly(ethylene imine). Chemical Communications, 534-535 (2002).

Giersig, M. and R. Caruso: Preparation and characterization of nanoporous TiO_2 membranes. Abstracts of Papers of the American Chemical Society 222, 284-CHED (2001).

Göltner, C. G., B. Smarsly, B. Berton and M. Antonietti: On the microporous nature of mesoporous molecular sieves. Chemistry of Materials 13, 1617-1624 (2001).

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Han, B. H. and M. Antonietti: Cyclodextrin-based pseudopolyrotaxanes as templates for the generation of porous silica materials. Chemistry of Materials 14, 3477-3485 (2002).

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Kukula, H., H. Schlaad and K. Tauer: Linear and star-shaped polystyrene-block-poly(sodium glutamate)s as emulsifiers in the heterophase polymerization of styrene. Macromolecules 35, 2538-2544 (2002).

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Landfester, K.: Quantitative considerations for the formulation of miniemulsions. Progress in Colloid and Polymer Science 117, 101-103 (2001).

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Patents

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