



# Bunsentagung 2011

110<sup>th</sup> Annual German Conference  
on Physical Chemistry

featuring a special European EuCheMS Forum  
on Physical Chemistry and an Industrial  
Symposium with accompanying Exhibition

## PROGRAMME

**MAIN TOPIC:**  
Analysis and Control of Ultrafast  
Photoinduced Reactions

Henry-Ford Bau · Freie Universität Berlin

June 2 - 4, 2011

[www.bunsentagung.de](http://www.bunsentagung.de)



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### REGISTRATION

Registration for participation, social programme and lunch is possible at:

[www.busentagung.de](http://www.busentagung.de)

**MAIN TOPIC:****Analysis and Control of Ultrafast Photoinduced Reactions****with special European EuCheMS Forum, Industrial Symposium and Industrial Exhibition**

The main topic of the Bunsentagung 2011 focuses on state-of-the-art research in the field of the analysis and control of photoinduced reactions, where recent advances in experiments and theory are discussed. This also includes recent developments on attosecond dynamics of electronically excited states, studies on matter under extreme conditions, and the use of ultrafast X-rays pulses from free electron lasers.

Ultrafast photoinduced processes are since decades subject of fundamental interest. This is accompanied by the fundamental question: How fast can a chemical reaction be? Further, it is of general importance, if chemical processes can be controlled by the influence of light. During the last decades numerous studies were focused on processes, reaching the femtosecond time regime or even below. Femtochemistry has been pioneered by A.H. Zewail, the Nobel laureate in 1999. This field has significantly developed, where experimental progress has been strongly promoted by the availability of short pulse lasers. Important work at the border between physics, chemistry, and life sciences has been pursued more recently, which includes simple test systems and complex molecular assemblies.

Novel developments in physical chemistry and physics using experiments and theory reach from the analysis to the control of ultrafast photoinduced processes, where the field of coherent control has grown significantly. Variations in shape of photon pulses are used in order to disturb the constellations of nuclei and electrons so that the processes can be efficiently controlled and unique product states are reached. This subject has been focus of the Collaborative Research Center 450 in Berlin (SFB 450), where the final colloquium of SFB 450 will be held at the Bunsentagung 2011.

**Kindly supported by:**

- BASF SE, Ludwigshafen/D
- COHERENT (Deutschland) GmbH, Dieburg/D
- DFG – Deutsche Forschungsgemeinschaft, Bonn/D
- Evonik Degussa GmbH, Essen/D
- Fonds der Chemischen Industrie, Frankfurt/D
- Royal Society of Chemistry, Cambridge/UK
- SPECS GmbH, Berlin/D
- Umicore AG & Co. KG, Hanau/D

## PROGRAMME COMMITTEE

<b>Florian Ausfelder</b>	Deutsche Bunsen-Gesellschaft e.V., Frankfurt am Main/D
<b>Wolfgang Bessler</b>	Deutsche Forschungsanstalt für Luft- und Raumfahrt e.V., Stuttgart/D
<b>Vlasta Bonačić-Koutecký</b>	Humboldt-Universität zu Berlin/D
<b>Nikolaus Ernsting</b>	Humboldt-Universität zu Berlin/D
<b>Joshua Jortner</b>	Tel Aviv University/IL
<b>Jörn Manz</b>	Freie Universität Berlin/D
<b>Jens Michaelis</b>	LMU München/D
<b>Martin Quack</b>	ETH Zürich/CH
<b>Eckart Rühl</b>	Freie Universität Berlin/D
<b>Wolfgang von Rybinski</b>	Henkel AG & Co. KGaA, Düsseldorf/D
<b>Rolf Schäfer</b>	TU Darmstadt/D
<b>Ludger Wöste</b>	Freie Universität Berlin/D

## LOCAL ORGANIZING COMMITTEE

<b>Klaus Christmann</b>	Freie Universität Berlin/D
<b>Thomas Risse</b>	Freie Universität Berlin/D
<b>Eckart Rühl (Chairman)</b>	Freie Universität Berlin/D
<b>Ludger Wöste</b>	Freie Universität Berlin/D

## HOST

German Bunsen Society of Physical Chemistry, Frankfurt am Main/D

## organizational support by:

DECHEMA e.V., Frankfurt am Main/D

Freie Universität Berlin



Freie Universität Berlin/Henry Ford Bau

## EXHIBITION

The companies' exhibition provides a perfect platform for communication to initiate and foster contacts with leading representatives from science and industry. The exhibition presents an opportunity for a limited number of companies to demonstrate their competencies in related products and services.

Prof. E. Rühl of the local organizing committee, will advise you on available space and prices.

- AMETEK GmbH, Göttingen/D
- CVI Melles Griot, Melles Griot GmbH, Bensheim/D
- DFG – Deutsche Forschungsgemeinschaft, Bonn/D
- DOCKWEILER AG, Neustadt-Glewe/D
- ERUE Kunststofftechnik GmbH, Radevormwald/D
- FEMTOLASERS Produktions GmbH, Korneuburg/A
- Hamamatsu Photonics Deutschland GmbH, Herrsching/D
- Optoprim GmbH, Landsberg am Lech/D
- PREVAC sp. z o.o., Rogow/PL
- Radiant Dyes Laser & Acc. GmbH, Wermelskirchen/D
- Sirah Laser- und Plasmatechnik GmbH, Kaarst/D
- SPECS Surface Nano Analysis GmbH, Berlin/D
- Vieweg + Teuber Verlag, Springer Fachmedien Wiesbaden GmbH/D
- Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim/D

## MEETINGS OF THE BUNSEN SOCIETY

## Thursday, June 2, 2011

09:00-11:00	Vorstandssitzung*	
09:00-11:00	Sitzung der Unterrichtskommission*	
09:00-11:00	Sitzung der Themenkommission*	
11:00-14:00	Sitzung des Ständigen Ausschusses*	
11:30-14:45	Karrierefórum* Thema: „Karriereplanung von promovierten Physikochemikern“	Hörsaal B
15:00-16:00	Ordentliche Mitgliederversammlung*	Hörsaal A

## Friday, June 3, 2011

12:30-13:30	Konstituierende Sitzung der AG Bunsen-Karrierefórum*	
15:00	1 <sup>st</sup> meeting of the EuCheMS Physical Chemistry Division	Henry-Ford Building

\* in German only

PROGRAMME AT A GLANCE

Thursday, June 2, 2011

	Max-Kade-Auditorium
16:30	Opening Ceremony
18:00-18:45	OPENING LECTURE: P. Corkum
19:30-22:00	Welcome Reception

Friday, June 3, 2011

	Max-Kade-Auditorium				
Chair:	M. Quack				
8:30-9:15	PLENARY LECTURE: G. Gerber				
	Max-Kade-Auditorium	Lecture Room C	Lecture Room B	Lecture Room D	Lecture Room A
	Main Topic	Biophysical Chemistry	Soft Matter	Gas Phase	Interfaces
Chair:	R. Mitri	D.P. Herten	S. Engelskirchen	M. Schnell	T. Jacob
9:20-9:40	PROGRESS REPORT: H. Natter	M.M. Nardai	W. Christen	v. Klitzing	
9:40-10:00	T. Baumert	W. Kautek	N.A. Stolwijk	P. Alarcón	J. Boos
10:00-10:20	A. Kushnarenko	H. Heerklotz	C. Uzüm	T. Karpuschkin	T. Kraska
10:20-10:40	P. Horsch	J. Seeliger	K. Bressel	M. Gerhards	M. Jabnoun
10:40-11:00	Coffee Break				
	Main Topic	Biophysical Chemistry	Soft Matter	Gas Phase	Interfaces
Chair:	O. Kühn	J. Bredenbeck	O. Diwald	M. Hippler	A. Turchanin
11:00-11:20	PROGRESS REPORT: S.A. Baeurle	J. Wagner	M. Schmitt	J. Mittel	
11:20-11:40	K. Takatsuka	T. Kottke	O. Klems	L. Paetow	K.D. Etzel
11:40-12:00	V. Bonacic-Koutecký	T. Steinbrecher	S. Engelskirchen	M. Savoca	E. Mutoro
12:00-12:20	P. Saalfrank	S. Niebling	M. Bauer	M. Schneider	W.G. Bessler
12:20-13:30	Lunch Break				
Chair:	T. Baumgärtel				
13:30-14:15	PLENARY LECTURE: M. Vrakking – Max-Kade-Auditorium				
	Main Topic	Gas Phase	Hot Topics	Methods	Interfaces
Chair:	A. Lindinger	G. von Helden	J.-U. Grabow	A. Brockhinke	Y. Joseph
14:20-14:40	T. Siebert	R. Flesch	A. Triolo	A. Rosenhahn	J. Rappich
14:40-15:00	B. Dietzek	A. Patzer	M. Wilkening	K. Zenichowski	R. Rösch
15:00-15:20	J. Plenge	C. van der Linde	T. Echelmeyer	D. Sebastiani	A. Nooke
15:20-15:40	O. Dopfer	C. Manca Tanner	K. Boldt	S. Krapf	E. Varene
15:40-16:00	Coffee Break				
	Main Topic	Solid State	Hot Topics	Methods	Interfaces
Chair:	T. Kottke	P. Tegeder	E. Mutoro	C. Marian	G. Friedrichs
16:00-16:20	PROGRESS REPORT: A.M. Beale	J. Küpper	O. Korup	T. Rocha	
16:20-16:40	W. Zinth	C. Milanese	R. Kutta	M. Sierka	S. Becker
16:40-17:00	C. Schröter	L. Andrejs	J. Bredenbeck	J. Lauth	J. Vogt
17:00-17:20	N. Ernsting	C. Klinke	M. Eichelbaum	J.M. Dieterich	S. Schauerermann
17:20-17:40	K. Röttger	M. Kilo	M. Pescher	G.J. Moro	T. Kittel
17:40-18:00	J. Bahrenburg	K.F. Domke	R. Prentner	A. Beyer	B. Neumann
18:00-22:00	POSTERSESSION – Foyer-Henry-Ford-Building				

PROGRAMME AT A GLANCE

Saturday, June 4, 2011

	Max-Kade-Auditorium				
Chair:	L. Wöste				
8:30-9:15	PLENARY LECTURE: F. Krausz				
	Max-Kade-Auditorium	Lecture Room C	Lecture Room D	Lecture Room A	Lecture Room B
	Main Topic	Solid State	Liquids	Interfaces	EuChemS
Chair:	B. Paulus	D. Samuelis	E. Aziz	T. Risse	P. Bagiolini
9:20-9:40	PROGRESS REPORT: W. Domcke	W. Sitte	V.C. Weiss	T. Bürgi	J. Bernard
9:40-10:00		M. Kaczmarek	D. Hinderberger	A.M. Müller	A. Lapini
10:00-10:20	M. Leibscher	V. Sepelak	W. Schröer	M. Bäumer	J.P. Reid
10:20-10:40	Coffee Break				
	Main Topic	Solid State	Liquids	Interfaces	Industrial-Symposium
Chair:	C. Frischkorn	R. DeSouza	D. Paschek	T. Bernhardt	I.V. Hertel
10:40-11:00	PROGRESS REPORT: U. Bovensiepen	S. Baumann	C. Schröder	K. Christmann	A. Wiehe
11:00-11:20		J. van Slageren	C. Roth	Y. Fujimori	W. Kautek
11:20-11:40	D. Ehmer	C. Strelow	T. Sonnleitner	C. Kunze	K. Heyne
11:40-12:00	T. Wolf	D.N. Mueller	T. Lenzer	X. Stammer	M. Ulbricht
12:00-12:20	J. Köhler	M. Schroeder	E. Bodo	J.M. Gottfried	D. Steinbrück
12:20-13:30	Lunch Break				
	Max-Kade-Auditorium				
Chair:	K. Kohse-Hoeinghaus				
13:30-14:15	PLENARY LECTURE: J.-P. Wolf				
	Main Topic	Solid State	Methods	Biophysical Chemistry	Industrial-Symposium
Chair:	M. Quack	K. Franke	F. Hensel	K. Domke	N.N.
14:20-14:40	M.N.R. Ashfold	A. Chanaewa	L. Walewski	L. Treuel	F. Handle
14:40-15:00	PROGRESS REPORT: A. Bandrauk	D. Samuelis	P. Nuernberger	R. Flehr	B. Strehmel
15:00-15:20		A. Kuhn	S. Gomes da Costa	K. Weise	T. Greco
15:20-15:40	Nernst-Haber-Bodenstein Awardee C. Eggeling	T. Gross	J. Behler	G. Nieheus	M. Lisowski
15:40-16:00		M. Seidl	H. Graaf	M. Schwering	J. Kolenda
16:00-17:00	Ceremony for poster awards Closing remarks: E. Rühl, FU Berlin				
from 19:00	Conference Dinner at the „Harnack Haus“				

## OPENING

 Thursday, June 2, 2011 Max-Kade-Auditorium

- 16:30 – 18:00 **Opening Ceremony of the General Assembly and the Bunsentagung**  
**Martin Quack**, 1<sup>st</sup> Chairman of the German Bunsen Society for Physical Chemistry, Frankfurt/D  
**Helmut Schwartz**, Chairman of the Alexander von Humboldt-Foundation, Berlin/D
- Award of the Nernst-Haber-Bodenstein Prize
  - Award of the Walther-Nernst-Denk Münze
- 18:00 – 18:45 **Opening Lecture**  
**Laser induced molecular imaging**  
 Paul Corkum, University of Ottawa and National Research Council, Ottawa/CDN
- 19:30 – 22:00 **Welcome Reception**  
 Mensa FU (Otto-von-Simson-Strasse)

## PLENARY LECTURES

 Friday, June 3, 2011 Max-Kade-Auditorium

- 08:30 – 09:15 **Optimal control of molecular and electron dynamics**  
 Gustav Gerber, Universität Würzburg/D
- 13:30 – 14:15 **Ultrafast molecular dynamics using attosecond and x-ray free electron lasers**  
 Marc Vrakking, Max-Born-Institut, Berlin/D

 Saturday, June 4, 2011 Max-Kade-Auditorium

- 08:30 – 09:15 **Chemistry in motion – spectroscopy with attosecond time resolution**  
 Ferenc Krausz, LMU München und MPQ Garching/D
- 13:30 – 14:15 **Towards weather modulation using high intensity lasers**  
 J.-P. Wolf, Université de Genève/CH

## PROGRESS REPORTS

 Friday, June 3, 2011 Max-Kade-Auditorium

- 09:20 – 10:00 **Ultrafast laser control of ionization – fundamentals and applications**  
 Thomas Baumert, Universität Kassel/D
- 11:00 – 11:40 **Electron wavepacket dynamics in chemistry: From nonadiabatic reaction to control of the electronic states**  
 Kazuo Takatsuka, The University of Tokyo, Kornaba/J
- 16:00 – 16:40 **Ultrafast reactions and the control via vibrational pre-excitation**  
 Wolfgang Zinth, LMU München/D

 Saturday, June 4, 2011 Max-Kade-Auditorium

- 09:20 – 10:00 **Theory of excited-state electronic couplings and coherences and their detection by time- and frequency-resolved four-wave-mixing spectroscopy**  
 Wolfgang Domcke, TU München, Garching/D
- 10:40 – 11:20 **Ultrafast electron dynamics at interfaces probed by femtosecond photoelectron spectroscopy**  
 Uwe Bovensiepen, Universität Duisburg-Essen/D
- 14:40 – 15:20 **FAZSST-Femto-Atto-Zepto-Second simulations and theory – controlling electrons with lasers**  
 André Bandrauk, Université de Sherbrooke, Québec/CDN

## THURSDAY, JUNE 2, 2011

	Max-Kade-Auditorium
16:30	<b>OPENING CEREMONY</b>
<i>Chair:</i>	<i>M. Quack</i>
18:00 – 18:45	<b>OPENING LECTURE</b> <b>Laser induced molecular imaging</b> P. Corkum, University of Ottawa and National Research Council of Canada/CDN
	Mensa of the FU (Otto-von-Simson-Strasse)
19:30 – 22:00	<b>WELCOME RECEPTION</b>



Freie Universität Berlin/Henry Ford Bau

FRIDAY, JUNE 3, 2011

Max-Kade-Auditorium	
Chair:	M. Quack
08:30	<b>PLENARY LECTURE: Quantum control of chemistry by tailored femtosecond laser pulses</b> G. Gerber, Universität Würzburg/D
Max-Kade-Auditorium	Lecture Room C
Main Topic	Biophysical Chemistry
Chair:	R. Mitri
09:20	<b>PROGRESS REPORT: Ultrafast control of ionization – fundamentals and applications</b> T. Baumert, Universität Kassel/D
09:40	<b>Elektroenzymatische Glucoseoxidation mit immobilisierter Pyranose-2-Oxidase</b> H. Natter, J. Gajdzik, J. Lenz, Universität des Saarlandes/D; M. Manolova, D.M. Kolb, Universität Ulm/D
10:00	<b>The influence of anions on the adsorption of surface layer proteins on electrified interfaces</b> T. Werzer, C. Zafiu, G. Trettenhahn, D. Pum, U.B. Sleytr, W. Kautek, University of Vienna/A
10:20	<b>Intramolecular dynamics of methane and propyne derivatives after excitation of the first overtone of CH-stretching vibrations</b> A. Kushnarenko, E. Miloglyadov, M. Quack, G. Seyfang, ETH Zürich/CH
10:40	<b>Coffee Break</b>
11:00	<b>Circular dichroism in ion yields employing femtosecond laser ionization</b> P. Horsch, G. Urbasch, Universität Marburg/D; D. Kröner, Universität Potsdam/D; K.M. Weitzel, Universität Marburg/D
11:20	<b>Cross-amyloid interaction of IAPP and A<math>\beta</math> at lipid membranes</b> J. Seeliger, F. Evers, C. Jeworrek, S. Kapoor, R. Winter, TU Dortmund/D
Chair:	O. Kühn
11:00	<b>PROGRESS REPORT: Electron wavepacket dynamics in chemistry: from nonadiabatic reaction to control of the electronic states</b> K. Takatsuka, The University of Tokyo, Komaba/J
11:20	<b>Mechanism of signal transduction of the LOV2-J<math>\alpha</math> photosensor from <i>Avena sativa</i></b> E. Peter, B. Dick, S.A. Baeurle, Universität Regensburg/D
	<b>Flavin radical formation in the blue light sensor cryptochrome monitored by Fourier transform infrared spectroscopy</b> D. Immeln, E. Herman, T. Kottke, Universität Bielefeld/D

FRIDAY, JUNE 3, 2011

Max-Kade-Auditorium		
Chair: M. Quack		
08:30 <b>PLENARY LECTURE: Quantum control of chemistry by tailored femtosecond laser pulses</b> G. Gerber, Universität Würzburg/D		
Lecture Room B	Lecture Room D	Lecture Room A
Soft Matter	Gas Phase	Interfaces
Chair: S. Engelskirchen	M. Schnell	T. Jacob
09:20	<b>Concentration dependence of size, shape and orientation of linear and star-branched copolymers</b> M.M. Nardai, G. Zifferer, Universität Wien/A	<b>Condensation processes in the vicinity of the critical point: a high density supersonic beam study</b> W. Christen, T. Krause, B. Chen, K. Rademann, Humboldt-Universität zu Berlin/D
09:40	<b>Control of foam film and wetting film stability: electrostatics vs. ionspecificity</b> N. Schelero, N. Kristen, R. v. Klitzing, Technische Universität Berlin/D	<b>The use of radiotracer diffusion to investigate ionic transport in polymer electrolytes</b> N.A. Stolwijk, M. Wiencierz, J. Fögeling, J. Bastek, Sh. Obeidi, Universität Münster/D
10:00	<b>Experimental and theoretical study of the reaction of OH with the aromatic molecule p-cymene, proceeding via two adducts.</b> P. Alarcón, Universität Bayreuth/D; B. Bohn, Forschungszentrum Jülich/D; M.T. Rayez, University Bordeaux 1, Talence/F; J.C. Rayez, University Bordeaux, Talence/F; C. Zetzsch, Universität Bayreuth/D	<b>Foam properties of n-Dodecyl-b-D-maltoside, hexaethyleneglycol monododecyl ether and their 1:1 mixture</b> J. Boos, C. Stubenrauch, Universität Stuttgart/D
10:20	<b>Elasticity measurements on thin polymer films: an AFM study</b> C. Üzüüm, A. Burmistrova, M. Richter, J. Hellwig, R. v. Klitzing, Technische Universität Berlin/D	<b>Water-Encapsulated [60] fullerene derivatives in a penning trap</b> T. Karpuschkin, M. Vonderach, P. Weis, W. Klopper, M. Kappes, O. Hampe, Karlsruher Institut für Technologie – KIT/D
10:40	<b>Kinetics of the formation of polymer modified vesicles studied with the SAXS-stopped-flow technique</b> K. Bressel, M. Muthig, M. Gradzielski, Technische Universität Berlin/D; I. Grillo, Institut Laue-Langevin, Grenoble/F; J. Gummel, T. Narayanan, European Synchrotron Radiation Facility, Grenoble/F	<b>Investigation of the binary nucleation in the system n-nonane/methane by MD simulation</b> T. Kraska, S. Braun, Universität zu Köln/D
11:00	<b>A new technique: quadruple-resonance-spectroscopy for isomer selection in an electronically excited state</b> M. Weiler, K. Bartl, A. Funk, M. Gerhards, TU Kaiserslautern/D	<b>Calorimetric study of surfactants and their mixtures at the solid-liquid interface</b> M. Jabnoun, Henkel AG & Co.KGaA, Düsseldorf/D; W. von Rybinski, Universität Düsseldorf/D
11:20	<b>Coffee Break</b>	<b>Coffee Break</b>
Soft Matter	Gas Phase	Interfaces
Chair: O. Diwald	M. Hippler	A. Turchanin
11:00	<b>Direction-dependent diffusion of spindle-shaped magnetic colloids by means of X-ray photon correlation spectroscopy</b> B. Fischer, L. Müller, DESY, Hamburg/D; C. Passow, J. Wagner, Universität Rostock/D	<b>Eigenstate resolving molecular spectroscopy in the gas-phase: towards larger systems and higher energies</b> M. Schmitt, C. Brand, O. Oeltermann, Universität Düsseldorf/D
11:20	<b>Nanostructured polymers from melamine formaldehyde resin using microemulsions as template</b> O. Klems, R. Strey, Universität zu Köln/D	<b>Electrochemische Abscheidung von Brennstoffzellen-Katalysatoren mit Hilfe einer Wasserstoffverzehranode</b> J. Mitzel, F. Arena, H. Natter, Universität des Saarlandes, Saarbrücken/D; T. Walter, M. Batzer, M. Stefener, elcomax GmbH, München/D; R. Hempelmann, Universität des Saarlandes, Saarbrücken/D

## FRIDAY, JUNE 3, 2011

	Max-Kade-Auditorium	Lecture Room C
	Main Topic	Biophysical Chemistry
Chair:	O. Kühn	J. Bredenbeck
11:40	<b>Analysis and control of nonadiabatic dynamics in complex systems: theoretical methods and experimental verification</b> V. Bonacic-Koutecký, Humboldt-Universität zu Berlin/D	<b>QM/MM-Dynamiksimulationen von schnellem Elektronentransfer in DNA Photolyase</b> B. Woiczikowski, T. Steinbrecher, T. Kubar, M. Elstner, Karlsruher Institut für Technologie – KIT/D
12:00	<b>Correlated dynamics of laser-pulse excited electrons</b> T. Klamroth, J.-C. Tremblay, D. Kröner, S. Klinkusch, P. Krause, P. Saalfrank, Universität Potsdam/D	<b>Quantitative, label-free and site-specific monitoring of molecular recognition: a multivariate UV resonance Raman approach</b> S. Niebling, C. Herrmann, Universität Osnabrück/D; H.Y. Kuchelmeister, C. Schmuck, Universität Duisburg-Essen/D; S. Schlücker, Universität Osnabrück/D
12:20	<b>Lunch Break</b>	
	Max-Kade-Auditorium	
Chair:	T. Baumgärtel	
13:30	<b>PLENARY LECTURE: Ultrafast molecular dynamics using attosecond and X-ray free electron Lasers</b> M. Vrakking, Max Born-Institute, Berlin/D	
	Max-Kade-Auditorium	Lecture Room C
	Main Topic	Gas Phase
Chair:	A. Lindinger	G. von Helden
14:20	<b>Spin, charge and ultrafast structural dynamics as elements of control in selective photo-chemistry</b> T. Siebert, F. Hagemann, O. Gause, L. Wöste, Freie Universität Berlin/D	<b>Gas-Festkörper-Verschiebung molekularer Innerschalenübergänge</b> R. Flesch, Freie Universität Berlin/D; P. Feulner, F. Blobner, TU München, Garching/D; E. Serdaroglu, E. Rühl, Freie Universität Berlin/D
14:40	<b>Excited-state dynamics in ruthenium(II)-polypyridine based black absorbers and white emitters</b> B. Dietzek, M. Schmitt, R. Siebert, M. Wächtler, S. Rau, L. González, U.S. Schubert, J. Popp, Universität Jena/D	<b>Spectroscopic and quantum chemical characterization of protonated naphthalene-Ar clusters in the S<sub>0</sub> and S<sub>1</sub> State</b> A. Patzer, M. Schütz, O. Dopfer, TU Berlin/D; I. Alata, C. Dedonder, M. Broquier, C. Jouvet, Université Paris Sud and Institut des Sciences Moléculaires d'Orsay CNRS/F
15:00	<b>Kohärente Anregung von Neon durch VUV-Kurzpulsstrahlung</b> J. Plenge, A. Wirsing, C. Raschpichler, E. Rühl, Freie Universität Berlin/D	<b>Reactivity of hydrated transition metal ions M<sup>+</sup>(H<sub>2</sub>O)<sub>n</sub> towards nitrous oxide, oxygen and deuterium oxide</b> C. van der Linde, R.F. Höckendorf, O.P. Balaj, M.K. Beyer, Universität zu Kiel/D
15:20	<b>Photoionization-induced large-amplitude pendular motion in phenol<sup>+</sup>-Kr</b> O. Dopfer, TU Berlin/D; M. Miyazaki, A. Takeda, S. Ishuichi, M. Fujii, Tokyo Institute of Technology, Yokohama/J	<b>Nuclear spin symmetry conversion of water (H<sub>2</sub>O) in a supersonic expansion probed by CRD spectroscopy</b> C. Manca Tanner, D. Schmidiger, M. Quack, ETH Zürich/CH
15:40	<b>Coffee Break</b>	

## FRIDAY, JUNE 3, 2011

	Lecture Room B	Lecture Room D	Lecture Room A	
	Soft Matter	Gas Phase	Interfaces	
	O. Diwald	M. Hippler	A. Turchanin	Chair:
11:40	<b>Activity and interfacial properties of the lipase candida antarctica b in bicontinuous nonionic microemulsions</b> S. Engelskirchen, A. Halmagean, M. Laupheimer, C. Stubenrauch, S. Richter, B. Nebel, B. Nestl, B. Hauer, Universität Stuttgart/D; S. Wellert, TU Berlin/D; T. Hellweg, Universität Bielefeld/D	<b>Infrared spectra and structures of silver-PAH cation complexes</b> M. Savoca, J. Langer, O. Dopfer, Technische Universität Berlin/D; T. Wende, L. Jiang, G. Meijer, K. Asmis, Fritz-Haber-Institut, Berlin/D	<b>Investigating and improving SOFC cathode materials: a model system approach</b> E. Mutoro, E. Crumlin, Massachusetts Institute of Technology, Cambridge, MA/USA; M. Biegalski, H. Christen, D. Leonard, A. Borisevich, Oak Ridge National Laboratory, TN/USA; H. Poepke, B. Luerssen, M. Rohnke, J. Janek, University of Giessen/D; Y. Shao-Horn, Massachusetts Institute of Technology, Cambridge, MA/USA	11:40
12:00	<b>Where Synchrotron meets solution chemistry: a beneficial symbiosis for new insights into homogeneous reactions</b> M. Bauer, Karlsruhe Institut für Technologie – KIT/D	<b>Untersuchung der Photolyse von Dimethylnitrosamin (DMNA) mit Hilfe von 3d-REMPI- und Velocity-Map Ion-Imaging Spektroskopie</b> M. Schneider, U. Kensy, B. Dick, Universität Regensburg/D	<b>Physically based modeling of impedance and discharge behavior of a LiFePO<sub>4</sub> battery</b> H. Hellwig, S. Sörgel, W.G. Bessler, Deutsches Zentrum für Luft- und Raumfahrt, Stuttgart/D	12:00
12:20	<b>Lunch Break</b>			12:20
	Max-Kade-Auditorium			
Chair:	T. Baumgärtel			Chair:
13:30	<b>PLENARY LECTURE: Ultrafast molecular dynamics using attosecond and X-ray free electron Lasers</b> M. Vrakking, Max Born-Institute, Berlin/D			13:30
	Lecture Room B	Lecture Room D	Lecture Room A	
	Hot Topics	Methods	Interfaces	
	J.-U. Grabow	A. Brockhinke	Y. Joseph	Chair:
14:20	<b>On the nature of nm-scale heterogeneities in ionic liquids</b> O. Russina, L. Gontrani, University of Rome/I; A. Triolo, CNR, Rome/I; R. Caminiti, University of Rome/I	<b>Coherent soft X-ray microscopy of biological samples</b> A. Rosenhahn, Karlsruhe Institute of Technology - KIT/D; M. Beckers, T. Gorniak, T. Senkbeil, M. Grunze, University of Heidelberg/D	<b>Passivation of Si surfaces by hydrogen and organic molecules investigated by <i>in-situ</i> photoluminescence techniques</b> J. Rappich, X. Zhang, Helmholtz-Zentrum Berlin für Materialien und Energie GmbH/D; K. Hinrichs, Leibniz Institut für Analytische Wissenschaften – ISAS – e.V., Berlin/D	14:20
14:40	<b>Li dynamics in tetragonal Li<sub>1-x</sub>La<sub>3-x</sub>Zr<sub>2</sub>O<sub>12</sub> – application-oriented challenges meet fundamental research</b> A. Kuhn, M. Wilkening, Leibniz Universität Hannover/D	<b>Charakterisierung der Elektrosprayionisation mittels LIF-Spektroskopie</b> K. Zenichowski, M. Zühlke, D. Riebe, T. Beitz, C. Dosche, H.G. Löhmannsröben, Universität Potsdam/D	<b>Two-level fluctuations during conductance measurements in STM-Breakjunctions</b> R. Rösch, R. Schuster, Karlsruher Institut für Technologie – KIT/D	14:40
15:00	<b>Ternary ionogel-glasses as solid state lithium ion conductors</b> T. Echelmeyer, L. van Wüllen, Universität Münster/D	<b>Mobile protons in disordered systems from first-principles molecular dynamics simulations</b> D. Sebastiani, Freie Universität Berlin/D	<b>Gas sensing with ellipsometry and surface plasmon resonance</b> A. Nooke, H. Krüger, A. Krause, U. Beck, A. Hertwig, V. Lohse, D. Negendank, Bundesanstalt für Materialforschung und -prüfung, Berlin/D; J. Steinbach, Technische Universität Berlin/D	15:00
15:20	<b>Fluorescence Quenching of water-soluble CdSe/CdS/ZnS Quantum Dots with Fe<sup>3+</sup> for probing the Ligand Shell.</b> K. Boldt, Universität Hamburg/D; M. Thiry, CAN GmbH, Hamburg/D; S. Jander, K. Hoppe, H. Weller, Universität Hamburg/D	<b>The thermodynamics of charge transfer in DNA photolyase – using thermodynamic integration calculations to analyze the kinetics of electron transfer reactions</b> S. Krapf, T. Koslowski, Universität Freiburg/D; T. Steinbrecher, Karlsruher Institut für Technologie – KIT/D	<b>Inter- and intrafacial charge carrier dynamics in 6t on Au(111)</b> E. Varene, I. Martin, C. Bronner, L. Bogner, P. Tegeder, Freie Universität Berlin/D	15:20
15:40	<b>Coffee Break</b>			15:40

## FRIDAY, JUNE 3, 2011

	Max-Kade-Auditorium	Lecture Room C	
	Main Topic	Solid State	
Chair:	T. Kottke	P. Tegeder	
16:00	<b>PROGRESS REPORT: Ultrafast reactions and their control by vibrational pre-excitation</b> W. Zinth, T. Brust, S. Draxler, LMU München/D; M. Braun, LMU München und Universität Frankfurt/D	<b>Dynamic X-ray diffraction tomography during the preparation of single catalyst bodies</b> A.M. Beale, S.D.M. Jacques, M.G. O'Brien, B.M. Weckhuysen, Utrecht University/NL	
16:20		<b>Thermodynamic and kinetic investigations on pure and doped NaBH<sub>4</sub> – MgH<sub>2</sub> hydrogen storage system.</b> C. Milanese, A. Girella, A. Marini, Pavia University/I; S. Garroni, E. Napolitano, G. Mulas, Sassari University/I; S. Surinach, M.D. Baro, Universitat Autònoma de Barcelona/E; R. Campesi, JRC-IE, Petten/NL	
16:40	<b>CRASY: correlated rotational alignment spectroscopy resolves fragmentation processes</b> C. Schröter, T. Schultz, K. Kosma, Max Born Institut Berlin, Berlin/D	<b>Widerstandsdegradation in Blei-Zirkonat-Titanat (PZT) unter elektrischem Feld</b> L. Andrejs, J. Fleig, Technische Universität Wien/A	
17:00	<b>Femtosecond stimulated raman spectroscopy of flavin after optical excitation</b> N. Ernsting, A. Weigel, A.L. Dobryakov, Humboldt-Universität zu Berlin/D; B. Klaumünzer, P. Saalfrank, Universität Potsdam/D	<b>Truly two-dimensional colloidal nanocrystals</b> C. Klinke, Universität Hamburg/D	
17:20	<b>Ultrafast electronic deactivation dynamics of the rare natural nucleobases hypoxanthine and xanthine</b> K. Röttger, Universität Kiel/D	<b>Herstellung und Wasseraufnahme von nanoporösem Glas</b> F. Somorowsky, B. Durschang, M. Kilo, Fraunhofer Institut für Silicatforschung, Würzburg/D	
17:40	<b>Analysis of ultrafast photo-induced isomerization mechanisms of azobenzenes covalently linked to polymeric micronetworks</b> J. Bahrenburg, F. Renth, Universität zu Kiel/D; F. Plamper, T. Eckert, W. Richtering, RWTH Aachen University/D; F. Temps, Universität zu Kiel/D	<b>Label-free, quantitative microscopy of molecules and chemical conversion in zeolite catalysts</b> K.F. Domke, T.A. Riemer, G. Rago, M. Bonn, FOM Institute AMOLF, Amsterdam/NL; A.N. Parvulescu, D. Mores, B.M. Weckhuysen, University of Utrecht/NL	
	Foyer Henry-Ford-Building		
18:00	POSTERSESSION		

## FRIDAY, JUNE 3, 2011

	Lecture Room B	Lecture Room D	Lecture Room A	
	Hot Topics	Methods	Interfaces	
	E. Muroto	C. Marian	G. Friedrichs	Chair:
	<b>Manipulating the motion of large molecules: information from the molecular frame</b> J. Küpper, DESY/Universität Hamburg/D	<b>Spatial reactor profiles in heterogeneous catalysis research</b> O. Korup, S. Mavlyankariev, M. Geske, R. Schlögl, R. Horn, Fritz-Haber-Institut Berlin/D	<b>In-situ photoelectron spectroscopy characterization of Ag catalysts under oxidation reactions</b> T. Rocha, A. Oestereich, D. Demidov, R. Arrigo, M. Hävecker, A. Knop-Gericke, R. Schlögl, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D	16:00
	<b>Unraveling the flavin-catalyzed photo-oxidation of benzylic alcohol with transient absorption spectroscopy from subico- to microseconds</b> B. Kutta, Universität Regensburg/D; U. Megerle, M. Wenninger, LMU München/D; R. Lechner, B. König, Universität Regensburg/D; E. Riedle, LMU München/D; B. Dick, Universität Regensburg/D	<b>Structure determination of low-dimensional oxides by combination of theory and experiment</b> M. Sierka, Humboldt-Universität zu Berlin/D	<b>Catalytic CO Oxidation on oxide modified Pd(111): catalytic promotion vs. inhibition</b> S. Becker, Universität Magdeburg/D; R. Wrobel, West Pomeranian University of Technology Szczecin/PL; H. Weiß, Universität Magdeburg/D	16:20
	<b>Floppy molecules and transient species – a 2D-IR view</b> J. Bredenbeck, Universität Frankfurt am Main/D	<b>Synthesis of colloidal GaAs nanocrystals and their use in thin film applications</b> J. Lauth, T. Strupeit, Universität Hamburg/D; A. Kornowski, Universität Hamburg/D; H. Weller, Universität Hamburg/D	<b>LEED I(V) analysis of CO and N<sub>2</sub> physisorption on the NaCl(100) surface</b> J. Vogt, H. Weiss, Universität Magdeburg/D	16:40
	<b>Contact-free and in-situ: electrical conductivity measurements of oxidation catalysts via microwave cavity perturbation</b> M. Eichelbaum, C. Heine, A. Trunschke, R. Schlögl, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D	<b>Cluster structure optimization using hybrid global optimization techniques</b> J.M. Dieterich, R.A. Mata, Universität Göttingen/D	<b>Role of subsurface hydrogen diffusion in hydrocarbon conversions on supported model catalysts: a molecular beam study</b> S. Schauermaier, W. Ludwig, A. Savara, H.-J. Freund, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D	17:00
	<b>Rearrangements of hydrogen-bonding interactions in the solvation shell of a photoswitchable catalyst</b> M. Pescher, L. van Wilderen, Universität Frankfurt/D; S. Gruetzner, S. Hecht, Humboldt-Universität zu Berlin/D; J. Bredenbeck, Universität Frankfurt/D	<b>Beyond quantum microcanonical statistics</b> B. Fresch, G.J. Moro, Padova University/I	<b>Investigation on the support-effect of platinum group metal particles supported on metal oxides</b> T. Kittel, E. Roduner, Universität Stuttgart/D	17:20
	<b>Quantum wavepacket dynamics of stereomutation processes and parity violation in chiral molecules</b> R. Prentner, M. Quack, ETH Zürich/CH; J. Stohner, ZHAW, Wädenswil/CH; M. Willeke, ETH Zürich/CH	<b>Helium ion microscopy: first images</b> A. Beyer, A. Götzhäuser, Universität Bielefeld/D	<b>Katalyse mit porösen Seltenerdoxid Materialien</b> B. Neumann, Universität Bremen/D; A.E. Gash, Lawrence Livermore National Laboratory, CA/USA; J.C. Nino, H. Hegelin-Weaver, University of Florida, Gainesville, FL/USA; V. Zielasek, M. Baeumer, Universität Bremen/D	17:40
	Foyer Henry-Ford-Building			
	POSTERSESSION			18:00

## SATURDAY, JUNE 4, 2011

Max-Kade-Auditorium	
Chair:	L. Wöste
08:30	<b>PLENARY LECTURE: Chemistry in motion – spectroscopy with attosecond time resolution</b> F. Krausz, Max-Planck-Institut für Quantenoptik Garching/D
Max-Kade-Auditorium	Lecture Room C
Main Topic	Solid State
Chair:	B. Paulus
09:20	<b>PROGRESS REPORT: Time- and frequency-resolved spectroscopy beyond the third-order nonlinear polarization: N-wave mixing and strong-pump strong-probe spectroscopy</b> M. F. Gelin, D. Egorova, W. Domcke, Technische Universität München/D
09:40	<b>Long-term stability of SOFC-cathode materials in ambient atmospheres</b> W. Sitte, E. Bucher, A. Egger, Montanuniversität Leoben/A
10:00	<b>Direct ethanol fuel cells with Zn(S,Se) as electro-catalysts</b> M. Kaczmarek, M. Bredol, R. Brezina, Fachhochschule Münster, Steinfurt/D
10:20	<b>Effects of molecular symmetry on photoisomerization processes</b> M. Leibscher, S. Al-Jabour, J. Manz, Freie Universität Berlin/D
10:40	<b>Nonequilibrium spinel aluminates studied by high-resolution <sup>27</sup>Al MAS NMR</b> V. Sepelák, S. Indris, M. Scheuermann, Karlsruhe Institute of Technology – KIT/D; A. Feldhoff, University of Hannover/D; C. Kübel, Karlsruhe Institute of Technology – KIT/D; K. D. Becker, Braunschweig University of Technology/D; C. P. Grey, State University of New York, Stony Brook, NY/USA; P. Heitjans, University of Hannover/D
10:20	Coffee Break
Main Topic	Solid State
Chair:	C. Frischkorn
10:40	<b>PROGRESS REPORT: Ultrafast dynamics at interfaces probed by femtosecond photoelectron spectroscopy</b> U. Bovensiepen, Universität Duisburg-Essen/D
11:00	<b>Solid-solid interface formation in mesoporous titania nanoparticle networks</b> S. Baumann, M.J. Elser, M. Auer, Universität Erlangen-Nürnberg/D; J. Bernardi, TU Wien/A; N. Hüsing, Universität Salzburg/A; O. Diwald, Universität Erlangen-Nürnberg/D
11:20	<b>Magnetic resonance in molecular nanomagnetism</b> J. van Slageren, Universität Stuttgart/D
11:20	<b>Ultrafast vibrational dynamics in supramolecular complexes of cyclic and acyclic polyethers</b> D. Ehmer, M. Olschewski, S. Knop, J. Lindner, P. Vöhringer, Universität Bonn/D
11:20	<b>Colloidal nanocrystals coupled to optical semiconductor microtube resonators</b> C. Strelow, R. Seher, A. Mews, T. Kipp, Universität Hamburg/D

## SATURDAY, JUNE 4, 2011

Max-Kade-Auditorium		
L. Wöste		
Chair:		
08:30 <b>PLENARY LECTURE: Chemistry in motion – spectroscopy with attosecond time resolution</b> F. Krausz, Max-Planck-Institut für Quantenoptik Garching/D		
Chair:		
Lecture Room D	Lecture Room A	Lecture Room B
Liquids	Interfaces	EuChemS
E. Aziz	T. Risse	P. Bagiolini
09:20	<b>Kinetics of thermostatted ice growth from supercooled water</b> V.C. Weiss, M. Rullich, C. Köhler, T. Frauenheim, Universität Bremen/D	<b>Synthesis and chiroptical properties of gold nanoparticles</b> T. Bürgi, S. Knoppe, University of Geneva/CH
09:40	<b>Dinitrogen complexation with main group radicals</b> D. Kurzbach, Max-Planck-Institut für Polymerforschung, Mainz/D; A. Sharma, Northwestern University, Evanston, IL/USA; D. Sebastiani, Freie Universität Berlin/D; K. W. Klinkhammer, Universität Mainz/D; D. Hinderberger, Max-Planck-Institut für Polymerforschung, Mainz/D	<b>Spectroscopic observation of matrix-isolated carbonic acid trapped from the gas phase</b> J. Bernard, M. Seidl, I. Kohl, K.R. Liedl, E. Mayer, Universität Innsbruck/A; Ó. Gálvez, CSIC Madrid/E; H. Grothe, TU Wien/A; T. Loerting, Universität Innsbruck/A
10:00	<b>The liquid-liquid phase transitions in ionic solutions: criticality, crossover and complete scaling</b> W. Schröder, J. Köser, D. Arndt, V. Vale, A. Butka, A. Elshwishin, Universität Bremen/D	<b>Transient infrared spectroscopy: a new approach to investigate Valence Tautomeric Interconversion</b> A. Lapini, P. Tourón Touceda, S. Mosquera Vázquez, M. Lima, LENS – University of Florence/I; A. Dei, University of Florence/I; R. Righini, LENS – University of Florence/I
10:20	<b>Kolloidnanopartikel in der heterogenen Katalyse: Nutzung organischer Liganden zur Steuerung von Metall-Träger-Wechselwirkungen</b> P. Sonström, D. Arndt, V. Zielasek, M. Bäumer, Universität Bremen/D	<b>Mass accommodation of water at the surfaces of aqueous and glassy aerosol</b> J.P. Reid, R.E.H. Miles, D.L. Bones, H.-J. Tong, University of Bristol/UK
10:20	Coffee Break	
Liquids	Interfaces	Industrial-Symposium
D. Paschek	T. Bernhardt	I.V. Hertel
10:40	<b>MD-Simulationen von molekularen ionischen Flüssigkeiten unter Berücksichtigung atomarer Polarisationskräfte</b> C. Schröder, O. Steinhauser, Universität Wien/A	<b>Glyco-substituted tetrapyrroles as photosensitizers for PDT</b> A. Wiehe, biolitec AG, Jena and FU Berlin/D; D. Aicher, FU Berlin/D; C.B.W. Stark, Universität Hamburg/D; S. Gräfe, V. Albrecht, biolitec AG, Jena/D
11:00	<b>The role of defects on the properties of ionic liquids</b> C. Roth, T. Peppel, M. Köckerling, R. Ludwig, Universität Rostock/D	<b>Femtosecond laser interaction with cornea and dermal tissues</b> G. Grabner, A.K. Dextl, Paracelsus Medical University (PMU), Salzburg/A; F. Trautinger, Landeskrankenhaus St. Pölten/A; A. Hertwig, J. Krüger, Federal Institute for Materials Research and Testing, Berlin/D; W. Kautek, University of Vienna/A
11:20	<b>Dielectric and optical Kerr-effect spectroscopy into the dynamics of room temperature ionic liquids</b> T. Sonnleitner, Universität Regensburg/D; D. Turton, Glasgow University/UK; A. Ortner, M. Walther, Universität Freiburg/D; K. Wynne, Glasgow University/UK; R. Buchner, Universität Regensburg/D	<b>Hochaufgelöste Infrarotspektroskopie zur Bestimmung der Leberleistung von Menschen in Echtzeit</b> T. Rubin, T. von Haimberger, A. Helmke, K. Heyne, Freie Universität Berlin/D

## SATURDAY, JUNE 4, 2011

	Max-Kade-Auditorium	Lecture Room C
	Main Topic	Solid State
Chair:	C. Frischkorn	R. DeSouza
11:40	<b>The ultrafast photochemistry of fully halogenated cyclopentadienes in solution</b> T. Wolf, A.N. Unterreiner, Karlsruher Institut für Technologie – KIT/D	<b>Determination of total oxygen nonstoichiometries: a case study on <math>Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-\delta}</math> (BSCF)</b> D.N. Mueller, R.A. De Souza, M. Martin, RWTH Aachen University/D
12:00	<b>Ultrafast excited states dynamics of donor-substituted truxenones</b> J. Köhler, I. Fischer, T. Quast, J. Buback, T. Brixner, C. Lambert, Universität Würzburg/D	<b>Oxygen diffusion and surface exchange in <math>La_2NiO_{4+\delta}</math></b> N. Gauquelin, RWTH Aachen University/D; W. Paulus, Universität Rennes 1/F; R.A. DeSouza, M. Schroeder, RWTH Aachen University/D
12:20	<b>Lunch Break</b>	
	<b>Max-Kade-Auditorium</b>	
Chair:	K. Kohse-Höinghaus	
13:30	<b>PLENARY LECTURE: Towards weather modulation using high intensity lasers</b> J.-P. Wolf, Université de Genève/CH	
	Max-Kade-Auditorium	Lecture Room C
	Main Topic	Solid State
Chair:	M. Quack	K. Franke
14:20	<b>Exploring chemical and photochemical dynamics of reactions in solution</b> M.N.R. Ashfold, S.J. Greaves, T.A.A. Oliver, R.A. Rose, A.J. Orr-Ewing, University of Bristol/UK; I.P. Clark, G.M. Greetham, A.W. Parker, M. Towrie, Central Laser Facility, Didcot/UK; Y. Zhang, S.E. Bradforth, University of Southern California, Los Angeles, CA/USA	<b>3D nanostructured electrode for solar cells</b> A. Chanaewa, Universität Hamburg/D; B.H. Juarez, IMDEA Nanociencia, Madrid/E; C. Klinker, H. Weller, Universität Hamburg/D
14:40	<b>PROGRESS REPORT: Attosecond coherent electron wave packets CEWP's: effect of nuclear motion</b> A. Bandrauk, S. Chelkowski, Université de Sherbrooke, Québec/CDN; T. Bredtman, Freie Universität Berlin/D	<b>Ionic / electronic network design of lithium ion battery electrodes</b> D. Samuelis, J.-Y. Shin, Y. Yu, L. J. Fu, C. B. Zhu, J. Maier, Max-Planck-Institut für Festkörperforschung, Stuttgart/D
15:00		<b>Li ion diffusion in <math>Li_{12}Si_7</math>: Ultrafast quasi-1D diffusion and two different fast 3D jump processes revealed separately by <math>^7Li</math> NMR relaxometry</b> A. Kuhn, Universität Hannover/D; P. Sreeraj, H.-D. Wiemhöfer, Universität Münster/D; P. Heitjans, Universität Hannover/D

## SATURDAY, JUNE 4, 2011

	Lecture Room D	Lecture Room A	Lecture Room B	
	Liquids	Interfaces	Industrial-Symposium	
Chair:	D. Paschek	T. Bernhardt	I.V. Hertel	Chair:
11:40	<b>Assignment of carotene S* state features to the vibrationally hot ground electronic state</b> T. Lenzer, K. Oum, Universität Siegen/D; F. Ehlers, K. Golibrzuch, M. Scholz, R. Oswald, Universität Göttingen/D	<b>A highly ordered, aromatic bidentate self-assembled monolayer on Au(111): a combined experimental and theoretical study</b> X. Stammer, K. Tonigold, A. Bashir, O. Shekhah, A. Groß, Ch. Wöll, Karlsruher Institut für Technologie – KIT/D	<b>Laserbasierte Überprüfung von Gaspipelines aus der Luft</b> M. Ulbricht, A. Hoffstädt, Adlares GmbH, Teltow/D; A. Scherello, T. Kern, Open Grid Europe GmbH, Essen/D	11:40
12:00	<b>Theoretical description of ionic liquids</b> E. Bodo, R. Caminiti, University of Rome „La Sapienza“/I; A. Triolo, CNR-Istituto di Struttura della Materia, Tor Vergata, Rome/I	<b>Surface coordination chemistry with a bifunctional ligand: reaction of tetrapyrroldiporphyrin with Cu on Au(111)</b> M. Schmid, M. Chen, J. Xiao, Universität Erlangen-Nürnberg/D; Z. Shi, N. Lin, Hongkong University of Science and Technology/PRC; T.E. Shubina, T. Clark, H.-P. Steinrück, J.M. Gottfried, Universität Erlangen-Nürnberg/D	<b>Faseroptische chemische Sensorik mittels Multifrequenz-Phasenmodulationsspektroskopie</b> D. Steinbrück, M. Kumke, E. Schmäzlin, Universität Potsdam, Golm/D	12:00
12:20	<b>Lunch Break</b>			12:20
	<b>Max-Kade-Auditorium</b>			
Chair:	K. Kohse-Höinghaus			Chair:
13:30	<b>PLENARY LECTURE: Towards weather modulation using high intensity lasers</b> J.-P. Wolf, Université de Genève/CH			13:30
	Lecture Room D	Lecture Room A	Lecture Room B	
	Methods	Biophysical Chemistry	Industrial-Symposium	
Chair:	F. Hensel	K. Domke	N.N.	Chair:
14:20	<b>Combined MC/MD method for quantum simulations of molecules in superfluid helium</b> L. Walewski, H. Forbert, D. Marx, Ruhr Universität Bochum/D	<b>Interactions of nanoparticles with proteins: adsorption orientations and impact on structural integrity</b> L. Treuel, M. Malissek, S. Grass, J.P. Schulte, J.S. Gebauer, R. Zellner, Universität Duisburg-Essen/D	<b>Confocal laser scanning microscopy: observation of the microstructure of bitumen and asphalt concrete</b> F. Handle, S. Neudl, H. Grothe, TU Wien/A	14:20
14:40	<b>Direct mid-infrared femtosecond pulse shaping with a calomel acousto-optic programmable dispersive filter</b> P. Nuernberger, Universität Würzburg/D; R. Maksimenka, Fastlite, Orsay/F; K.F. Lee, A. Bonvalet, T. Vieille, Ecole Polytechnique, Palaiseau/F; C. Barta, M. Klima, BBT Materials Processing, Prague/CZ; T. Oksenhendler, P. Tournois, D. Kaplan, Fastlite, Orsay/F; M. Joffre, Ecole Polytechnique, Palaiseau/F	<b>Design und Charakterisierung eines Drei-Farben-FRET-Systems mit Oligonukleotidrückgrat</b> R. Flehr, Universität Potsdam/D; A. Kienzler, R. Kramer, W. Bannwarth, Universität Freiburg/D; M. U. Kumke, Universität Potsdam/D	<b>Photopolymers in Computer-To-Plate (CtP) ultrafast printing plates: laser diodes generate industrial products</b> B. Strehmel, H. Baumann, Kodak GCG GmbH, Osterode/D	14:40
15:00	<b>Picosecond supercontinuum-based hyperspectral CARS imaging</b> S. Gomes da Costa, G. Hehl, A. Volkmer, Universität Stuttgart/D	<b>Minimization of the line energy versus lipid sorting through electrostatic interactions: Ras isoform-specific membrane interactions</b> K. Weise, S. Kapoor, C. Denter, A. Werkmüller, A. Gohlke, S. Möbitz, TU Dortmund/D; S. Koch, Max Planck Institute of Molecular Physiology and TU Dortmund/D; G. Triolo, TU Dortmund/D; H. Waldmann, Max Planck Institute of Molecular Physiology and TU Dortmund/D; R. Winter, TU Dortmund/D	<b>Multishell Quantum Dots auf Basis von Indiumphosphid für hybride organisch-anorganische Leuchtdioden: Synthesemethoden, strukturelle Charakterisierung sowie spektroskopische Eigenschaften</b> T. Greco, C. Ippen, A. Wedel, Fraunhofer Institut Angewandte Polymerforschung, Potsdam/D	15:00

## SATURDAY, JUNE 4, 2011

	Max-Kade-Auditorium	Lecture Room C
	Main Topic	Solid State
Chair:	M. Quack	K. Franke
15:20	<b>NERNST-HABER-BODENSTEIN AWARDEE</b> <b>New insights of membrane dynamics by fluorescence STED nanoscopy</b> C. Eggeling, MPI für Biophysikalische Chemie, Göttingen/D	<b>In-situ Ramanspektroskopie von Interkalationsbatterien</b> T. Gross, Technische Universität Darmstadt/D; L. Giebeler, Leibniz-Institut für Festkörper- und Werkstoffforschung Dresden/D; C. Hess, Technische Universität Darmstadt/D
15:40		<b>Are amorphous ices connected to liquid states? Answers from experimental and <i>in silico</i> studies</b> M. Seidl, K. Winkel, T. Loerting, E. Mayer, Universität Innsbruck/A; F. Karsai, G. Zifferer, Universität Wien/A
16:00 – 17:00	<b>Ceremony for poster awards</b> Closing remarks: E. Rühl, FU Berlin	
19:00 – 24:00	<b>Conference Dinner</b> at the Harnack Haus	

## SATURDAY, JUNE 4, 2011

	Lecture Room D	Lecture Room A	Lecture Room B	
	Methods	Biophysical Chemistry	Industrial-Symposium	
Chair:	F. Hensel	K. Domke	N.N.	Chair:
15:20	<b>Extending the length- and time-scales of molecular dynamics simulations by artificial neural networks</b> N. Artrith, T. Morawietz, J. Behler, Ruhr-Universität Bochum/D	<b>Using THz absorption spectroscopy of solvated amino acids and MD simulations to explore hydrophobicity</b> G. Niehues, Ruhr-Universität Bochum/D; M. Heyden, University of California, Irvine, CA/USA; S. Funkner, D.A. Schmidt, E. Bründermann, M. Havenith, Ruhr-Universität Bochum/D	<b>A new femtosecond laser system for spectroscopy</b> M. Lisowski, FEMTOLASERS Produktions GmbH, Wien/A	15:20
15:40	<b>Dye-functionalized nanostructures on silicon</b> T. Baumgärtel, C. von Borczyskowski, H. Graaf, Technische Universität Chemnitz/D	<b>Stochastic chemical switching of spectroscopic states: a novel route to super resolution microscopy</b> M. Schwering, A. Kiel, A. Kurz, K. Lymperopoulos, A. Sprödefeld, R. Krämer, D.P. Herten, Universität Heidelberg/D	<b>Coherent Laserquellen – Schlüsseltechnologien von der Grundlagenforschung in die Anwendung</b> J. Kolenda, Coherent Deutschland GmbH, Dieburg/D	15:40
16:00 – 17:00	<b>Ceremony for poster awards</b> Closing remarks: E. Rühl, FU Berlin			16:00 – 17:00
19:00 – 24:00	<b>Conference Dinner</b> at the Harnack Haus			19:00 – 24:00

## Main Topic: Analysis and Control of Ultrafast Photoinduced Reactions

- P 1.01 **UV-vis as novel pathway to analyze and control photo-induced bulk polymerization**  
M. Schmitt, Universität des Saarlandes, Saarbrücken/D
- P 1.02 **Different time scales of excitation energy transfer in plant light-harvesting complex II**  
E. Müh, Freie Universität Berlin/D; T. Renger, Universität Linz/A
- P 1.04 **Synthesis and spectroscopic characterization of photoactive Ru-complexes immobilized on catalytic active gold nanoparticles**  
L. Zedler, F. Theil, B. Dietzek, A. Csaki, W. Fritzsche, M. Schmitt, J. Popp, University of Jena/D
- P 1.05 **Ultrafast processes in a new pH-switchable ruthenium polypyridine dye**  
M. Bräutigam, M. Wächtler, B. Dietzek, University of Jena/D; K. Monczak, S. Rau, University of Erlangen-Nuremberg/D; J. Popp, University of Jena/D
- P 1.06 **Optimal control of open quantum systems applied on photochemistry on surfaces**  
E. Asplund, T. Klüner, Universität Oldenburg/D
- P 1.07 **Femtosecond coherence spectroscopic study of the onset of chemical denaturation of myoglobin upon addition of minor amounts of urea**  
J. Meyer-Ilse, D. Akimov, B. Dietzek, University of Jena/D
- P 1.08 **Excited-state dynamics in 4H-imidazole-ruthenium(II) dyes**  
M. Wächtler, S. Kupfer, B. Dietzek, Universität Jena/D; S. Rau, Universität Erlangen-Nürnberg/D; R. Beckert, J. Guthmüller, L. Gonzales, J. Popp, Universität Jena/D
- P 1.09 **Annihilation of excited states in homodinuclear ruthenium complexes**  
C. Kuhnt, University of Jena/D; M. Karnahl, Uppsala University/S; S. Rau, University of Erlangen-Nuremberg/D; M. Schmitt, University of Jena/D; B. Dietzek, J. Popp, IPHT Jena e.V./D
- P 1.10 **Molecular dynamics probed via strong-field ionization of oriented molecules**  
S. Trippel, L. Holmegaard, S. Stern, J. Küpper, DESY, Hamburg/D
- P 1.11 **Photoinduced ultrafast dynamics of indoline dyes in ionic liquids and organic solvents**  
K. Oum, P.W. Lohse, J. Kuhnt, M. Ekimova, T. Lenzer, Universität Siegen/D; T. Oekermann, Friemann und Wolf Batterietechnik, Büdingen/D
- P 1.12 **Electronic and nuclear fluxes of pericyclic reactions: dynamics in the electronic ground state**  
J. Manz, B. Paulus, A. Schild, Freie Universität Berlin/D; H.-C. Hege, F. Marquardt, Zuse-Institut, Berlin/D
- P 1.13 **Ultraschnelle Zerfallsdynamik von 4p-Rydberg-Zuständen des CS<sub>2</sub>**  
I. Wagner-Drebenstedt, J. Plenge, M. Kurth, J. Berkemeyer, E. Rühl, Freie Universität Berlin/D
- P 1.14 **Investigation of the light induced relaxation pathway in building blocks of photoactive coordination polymers**  
R. Siebert, A. Winter, U. Schubert, B. Dietzek, J. Popp, Universität Jena/D
- P 1.15 **Polymers as artificial light harvesting antennas based on novel chromophores incorporated in a methacrylate backbone**  
J. Schäfer, R. Beckert, U.S. Schubert, B. Dietzek, J. Popp, Universität Jena/D
- P 1.16 **Control and analysis of laser-selective photochemistry at graphene-supported metal clusters**  
K. Hinrichs, M.E. Vaida, T.M. Bernhardt, Universität Ulm/D
- P 1.17 **The photoprotolytic cycle of photoacids in ice**  
A. Uritski, Universität Bonn/D; I. Presiado, D. Huppert, Tel Aviv University/IL
- P 1.18 **Analysis of coupled electronic and nuclear dynamics induced by ultrashort laser pulses: quantum simulations for the Cope rearrangement of semibullvalene**  
T. Bredtmann, D. Andrae, J. Manz, B. Paulus, Freie Universität Berlin/D; I. Barth, Max-Born-Institut, Berlin/D; F. Marquardt, H.-Ch. Hege, Zuse-Institut, Berlin/D
- P 1.19 **Photoswitchable foldamers in the condensed phase: a non-adiabatic hybrid QM/MM MD Study**  
S. Braun, M. Böckmann, D. Marx, Ruhr-Universität Bochum/D
- P 1.20 **In-situ FTIR investigations on a light driven water reduction system**  
E. Barsch, F. Gärtner, Leibniz-Institut für Katalyse e.V., Rostock/D; R. Ludwig, Universität Rostock/D
- P 1.21 **Nanoscale femtosecond laser processing of dielectrics, semiconductors, and polymers: laser-induced periodic surface structures and dielectric to metal transitions**  
M. Forster, University of Vienna/A; N. Faure, E. Audouard, R. Stoian, University Jean Monnet, Saint Etienne/F; W. Kautek, University of Vienna/A

- P 1.22 **Excited-state proton transfer: synthesis and characterization of new photoacids**  
C. Spies, M. Vester, B. Finkler, D. Auerbach, G. Jung, Universität des Saarlandes, Saarbrücken/D
- P 1.23 **Ultrakurzzeitdynamik von 5,10,15,20-Tetraarylporphyrin und dessen Metallanaloga**  
Y. Liang, Karlsruher Institut für Technologie – KIT/D; O. Schalk, National Research Council Canada, Ottawa/CDN; A.N. Unterreiner, Karlsruher Institut für Technologie – KIT/D
- P 1.24 **Precise and rapid detection of optical activity for femtosecond spectroscopy**  
A. Steinbacher, J. Buback, P. Nuernberger, T. Brixner, Universität Würzburg/D
- P 1.25 **Investigation of fs-light-induced electron transfer in the interface of dye-sensitized zinc oxide nanoparticles**  
K. Strauch, University of Gießen/D; C. Litwinski, Rhodes University, Grahamstown/ZA; E. Rohwer, H. Schwöerer, University of Stellenbosch/ZA; T. Nyokong, Rhodes University, Grahamstown/ZA; D. Schlettwein, University of Gießen/D
- P 1.26 **Geminate recombination of solvated electrons in liquid-to-supercritical water an independent reaction times and Monte Carlo study**  
J. Torres-Alacan, S. Kratz, J. Urbanek, J. Lindner, P. Vöhringer, Universität Bonn/D
- P 1.27 **Excited state solvation dynamics of a polarity probe**  
C. Allolio, D. Sebastiani, Freie Universität Berlin/D
- P 1.28 **Ultrafast photoisomerisation in the condensed phase: the case of azobenzene demystified by nonadiabatic molecular dynamics simulations**  
M. Böckmann, Ruhr-Universität Bochum/D; N.L. Doltsinis, King's College London/UK; D. Marx, Ruhr-Universität Bochum/D
- P 1.29 **Fs-time-resolved photoelectron spectroscopy of adenine in aqueous solution**  
F. Buchner, A. Lübcke, T. Schultz, Max-Born-Institut, Berlin/D
- P 1.30 **Ultrafast vibrational dynamics of intramolecular hydrogen bonds in pinacol probed with 2DIR-spectroscopy**  
M. Olschewski, J. Lindner, P. Vöhringer, Universität Bonn/D
- P 1.31 **Ultrafast geminate recombination of solvated electrons in liquid-to-supercritical H<sub>2</sub>O and D<sub>2</sub>O**  
S. Kratz, J. Torres-Alacan, J. Urbanek, J. Lindner, P. Vöhringer, Universität Bonn/D
- P 1.32 **Femtosecond mid-infrared study on the photochemistry of 5-diazo Meldrum's acid**  
P. Rudolf, J. Buback, P. Nuernberger, T. Brixner, Universität Würzburg/D
- P 1.33 **On the nature of OH-stretching vibrations in hydrogen-bonded chains: two dimensional infrared spectroscopy**  
S. Knop, Universität Bonn/D; T. La Cour Jansen, University of Groningen/NL; J. Lindner, P. Vöhringer, Universität Bonn/D
- P 1.34 **Unusual mechanism for H<sub>3</sub><sup>+</sup> formation from ethane as obtained by femtosecond laser pulse ionization and quantum chemical calculations**  
P.M. Kraus, M.C. Schwarzer, N. Schirmel, G. Urbasch, G. Frenking, K.M. Weitzel, Universität Marburg/D
- P 1.35 **Quantum simulations of electronic and nuclear fluxes in molecules**  
A. Kenfack, Freie Universität Berlin/D; I. Barth, Max-Born Institut, Berlin/D; F. Marquardt, Zuse-Institut, Berlin/D; C. Lasser, Technische Universität München, Garching/D; S. Banerjee, Universität Potsdam/D; B. Paulus, Freie Universität Berlin/D
- P 1.36 **Femtosecond pulse laser nearfield tip-enhanced nanoscale processing of metallic and polymeric materials**  
P. Grabner, C. Huber, M. Forster, G. Trettenhahn, W. Kautek, University of Vienna/A
- P 1.37 **Excimer states in stacked adenine clusters**  
V.R. Smith, E. Samoylova, H.-H. Ritze, W. Radloff, T. Schultz, Max-Born-Institut, Berlin/D
- P 1.38 **Photoisomerisation around a fulvene double bond: evidence for coherent population transfer to the electronic ground state**  
N. Ernsting, Humboldt University Berlin/D; I. Ioffe, Lomonosov Moscow State University/RUS; A.L. Dobryakov, Humboldt University Berlin/D and Universidade de Santiago de Compostela/E; A.A. Granovsky, Firefly Project, Moscow/RUS; J.L. Pérez Lustres, Humboldt University Berlin/D
- P 1.39 **Dual photochemistry of anthracene-9,10-endoperoxide**  
A. Lauer, H. Fidder, K. Heyne, Freie Universität Berlin/D
- P 1.40 **Laser pulse control of charge transmission through single molecules**  
Y. Zelinsky, Humboldt-Universität Berlin/D; L. Wang, University of Science and Technology Beijing/PRC; V. May, Humboldt-Universität Berlin/D

- P 1.41 **Coherent control of bond breaking in building blocks of proteins with tailored femtosecond pulses**  
I. Shchatsinin, T. Laarmann, N. Zhavoronkov, I.V. Hertel, C.P. Schulz, Max-Born-Institut, Berlin/D
- P 1.42 **Water molecules in ultrashort intense laser pulses: time-resolved imaging of orbital densities?**  
S. Petretti, A. Saenz, Humboldt University Berlin/D; A. Castro, Instituto de Biocomputacion y Fisica de Sistemas Complejos, Zaragoza/E; P. Decleva, University of Trieste/I
- P 1.43 **Is molecular suppressed ionization in intense laser fields due to two-center interference?**  
Y. Vanne, A. Saenz, Humboldt-Universität Berlin/D
- P 1.44 **Energy transfer and ionization in extended quantum systems driven by ultrashort spatially shaped laser pulses**  
G.K. Paramonov, Universität Rostock/D; A.D. Bandrauk, Université de Sherbrooke/CDN; O. Kühn, Universität Rostock/D
- P 1.45 **Polarization pulse shaping on alkali systems**  
G. Achazi, M. Pawlowska, A. Patas, F. Weise, A. Lindinger, Freie Universität Berlin/D
- P 1.46 **Towards 4D characterization: time-resolved laser spectroscopy and spatial mass spectrometry**  
M. Zitnan, V. Szoecs, M. Janek, University Bratislava/SK; I. Bugar, J. Bdzoch, International Laser Center, Bratislava/SK; M. Jerigova, University Bratislava and International Laser Center, Bratislava/SK; D. Lorenc, International Laser Center, Bratislava/SK; D. Velic, University Bratislava/SK
- Biophysical Chemistry**
- P 2.01 **Effects of polysorbate 80 on lipid vesicles in the liquid-crystalline state**  
C. Hoffmann, University of Halle-Wittenberg/D; K. Edwards, J. Eriksson, Uppsala University/S; A. Blume, University of Halle-Wittenberg/D
- P 2.02 **Long-range protein-water dynamics correlate with antifreeze glycoprotein activity**  
K. Meister, Ruhr-Universität Bochum/D; S. Ebbinghaus, University of Illinois, Urbana, IL/USA; B.P. Born, Ruhr-Universität Bochum/D; A.L. DeVries, M. Gruebele, University of Illinois, Urbana, IL/USA; M. Havenith, Ruhr-Universität Bochum/D
- P 2.03 **Self-rolling polymeric microtubes**  
E. Sperling, Technische Universität Dresden and Leibniz-Institut für Polymerforschung, Dresden/D; S. Zakharchenko, L. Ionov, M. Stamm, Leibniz-Institut für Polymerforschung, Dresden/D
- P 2.04 **Korrelation der wellenlängenabhängigen Substratdynamik mit der Reaktionsquantenausbeute der Photoreduktion im NADPH: POR Komplex**  
R. Hanf, S. Fey, B. Dietzek, M. Schmitt, G. Hermann, J. Popp, Universität Jena/D
- P 2.05 **Refinement of models for biomolecules in the simulation of the titanium dioxide-solution interface**  
W. Friedrichs, B. Ohler, Universität Greifswald/D; S. Köppen, Universität Bremen/D; W. Langel, Universität Greifswald/D
- P 2.06 **Water fluctuations in the hydration shell of a 13-mer DNA duplex**  
K. Wittler, D. Paschek, R. Ludwig, Universität Rostock/D
- P 2.07 **Perturbation of protein hydration dynamics upon thermal denaturation of human serum albumin**  
T.Q. Luong, Ruhr-University Bochum/D; P.K. Verma, R.K. Mitra, S.N. Bose National Centre for Basic Sciences, Kolkata/IND; M. Havenith, Ruhr-University Bochum/D
- P 2.08 **Conformational selection in membrane-bound Ras proteins: consequences of G-domain orientational changes upon membrane insertion**  
S. Kapoor, K. Weise, Technical University Dortmund/D; G. Triola, H. Waldmann, Max Planck Institute of Molecular Physiology, Dortmund/D; R. Winter, Technical University Dortmund/D
- P 2.09 **Influence of a facial amphiphile on lipid model systems**  
P. Scholtysek, A. Achilles, S. Drescher, C.-V. Hoffmann, B.-D. Lechner, A. Meister, S. Reuter, C. Tschierske, J. Kreßler, K. Saalwächter, University of Halle-Wittenberg/D; K. Edwards, Uppsala University/S; A. Blume, University of Halle-Wittenberg/D
- P 2.10 **fs-fluorescence measurements of the adenine dinucleotide: direct observation of the excimer state**  
M. Stuhldreier, C. Schüler, Universität Kiel/D
- P 2.11 **A semi-empirical model for metabolic flux analysis**  
A. Marx, Universität Greifswald/D

- P 2.12 **Floreszenzspektroskopische Untersuchung der druckinduzierten Proteinfaltung an einer wässrig-festen Grenzfläche**  
J. Koo, C. Czeslik, Technische Universität Dortmund/D
- P 2.13 **Synthesis and characterization of novel iron oxide nanoparticles as magnetic resonance imaging (MRI) contrast enhancers**  
P. Stumpf, C. Graf, Freie Universität Berlin/D; D. Schmitz, Helmholtz-Zentrum Berlin/D; C. Goroncy, M. Küssner, D. Nordmeyer, E. Rühl, Freie Universität Berlin/D
- P 2.14 **Fabrication of biochip nanotemplates by vapour deposition of oligo(ethylene glycol) terminated self-assembled monolayers and their lithographic patterning**  
L. Kankate, M. Schnietz, Universität Bielefeld/D; H. Großmann, Universität Frankfurt/D; H.H. Solak, Paul-Scherrer-Institut, Villigen/CH; R. Tampé, Universität Frankfurt/D; A. Turchanin, A. Götzhäuser, Universität Bielefeld/D
- P 2.15 **IRMPD spectra and quantum chemical calculations of protonated neurotransmitters in the gas phase: serotonin**  
A. Lagutschenkov, J. Langer, O. Dopfer, Technische Universität Berlin/D; G. Berden, J. Oomens, FOM Institute for Plasma Physics Rijnhuizen, Nieuwegein/NL
- P 2.16 **Flow-cell reactor for (bio)electrochemical applications**  
J. Lenz, J. Gajdzik, H. Natter, Universität des Saarlandes, Saarbrücken/D; A. Kuhn, University Bordeaux 1, Pessac/F; R. Hempelmann, Universität des Saarlandes, Saarbrücken/D
- P 2.17 **Biophysical characterization of the dynamic properties of Ras proteins upon insertion into model biomembrane systems**  
A. Werkmüller, C. Denter, A. Gohlke, K. Weise, S. Möbitz, S. Koch, G. Triola, Technische Universität Dortmund/D; H. Waldmann, Max-Planck-Institut für Molekulare Physiologie, Dortmund/D; R. Winter, Technische Universität Dortmund/D
- P 2.18 **Synthese und Eigenschaften von NaGdF<sub>4</sub>/NaYF<sub>4</sub> & NaYF<sub>4</sub>/NaGdF<sub>4</sub> Kern/Schale-Nanopartikeln für die Magnetresonanztomografie**  
A. Uhl, Max-Planck-Institut für Biophysikalische Chemie, Göttingen/D; M. Haase, Universität Osnabrück/D; J. Frahm, Max-Planck-Institut für Biophysikalische Chemie, Göttingen/D
- P 2.19 **Characterisation of the chloride sensor MQAE for pharmacological Studies**  
M. Lahn, K. Sagolla, C. Hille, C. Dosche, Universität Potsdam/D
- P 2.20 **The simulation of interquinone charge transfer in a bacterial photoreaction center highlights the central role of a hydrogen-bond non-heme iron complex**  
F. Burggraf, T. Koslowski, Universität Freiburg/D
- P 2.21 **Multidimensional static and dynamic fluorescence techniques reveal excited-state relaxation in single-tryptophan-proteins and peptides**  
S. Schwedler, K. Kohse-Höinghaus, R. Brockhinke, A. Brockhinke, Universität Bielefeld/D
- P 2.22 **Sensing solvation effects: which properties of water are most sensitive to the presence of biomolecular solutes?**  
M. Heyden, D.J. Tobias, University of California, Irvine, CA/USA; M. Havenith, Ruhr-University Bochum/D
- P 2.23 **Dissecting the chemical composition profile of skin**  
M. Mischo, Ruhr-Universität Bochum/D; L. von Kobyletzki, Primary Care Research Unit, Karlstad/S; D.A. Schmidt, E. Bründermann, N.H. Brockmeyer, M. Havenith, Ruhr-Universität Bochum/D
- P 2.24 **Spectroscopy of individual semiconductor nanocrystals in solution and in biological systems**  
S. Flessau, N. Bohn, A. Mews, Universität Hamburg/D
- P 2.25 **Single-molecule fluorescence spectroscopy in living cells**  
D. Barzan, Universität Heidelberg/D; A. Pfeifer, U. Klingmüller, Deutsches Krebsforschungszentrum, Heidelberg/D; D.-P. Herten, Universität Heidelberg/D
- P 2.26 **Time-resolved step-scan infrared spectroscopy on the flavin photoreaction in water**  
C. Thöing, A. Pfeifer, T. Kottke, Universität Bielefeld/D
- P 2.27 **Watching the coupled low frequency vibration of the hydration shell with the ions**  
S. Funkner, G. Niehues, D.A. Schmidt, Ruhr-Universität Bochum/D; M. Heyden, University of California, Irvine, CA/USA; G. Schwaab, Ruhr-Universität Bochum/D; D.J. Tobias, University of California, Irvine, CA/USA; M. Havenith, Ruhr-Universität Bochum/D
- P 2.28 **Conjugation of L1-peptides to gold nanoparticles and characterization of the conjugates**  
E. Schulz, N.G. Bastús, T. Vossmeier, G. Loers, N. Rusche, D. Lutz, M. Schachner Camartin, H. Weller, Universität Hamburg/D

- P 2.29 **Quantification of cell adhesion strength on self assembled monolayers**  
M. Alles, I. Thomé, M.P. Arpa Sanchet, S. Stuppy, A. Rosenhahn, M. Grunze, Universität Heidelberg/D
- P 2.30 **The fluorescence lifetime based membrane leakage assay**  
 H. Patel, H. Heerklotz, University of Toronto/CDN
- P 2.31 **Mechanistic investigations of biomimetic [Fe] and [FeFe]-hydrogenase active site model complexes**  
S. Tschierlei, M. Karnahl, M. Beyler, S. Ott, R. Lomoth, Uppsala University/S
- P 2.32 **Investigation of motile marine organisms with Digital In-line Holographic Microscopy (DIHM) *in-situ* and under lab conditions**  
S. Stuppy, Universität Heidelberg and Karlsruher Institut für Technologie – KIT/D; M. Alles, M.P. Arpa Sanchet, Universität Heidelberg/D; I. Thome, Universität Heidelberg and Karlsruher Institut für Technologie – KIT/D; G.W. Swain, Florida Institute of Technology, Melbourne, FL/USA; J.A. Callow, M.E. Callow, University of Birmingham/UK; A. Rosenhahn, M. Grunze, Universität Heidelberg and Karlsruher Institut für Technologie – KIT/D
- P 2.33 **Optische und strukturelle Eigenschaften von Lanthanoid-dotierten Nanopartikeln des Typs MF<sub>2</sub> (M: Mg, Ca, Sr, Ba, Pb)**  
B. Voß, J. Nordmann, R. Komban, M. Haase, Universität Osnabrück/D
- P 2.34 **Herstellung hexagonaler NaYF<sub>4</sub>:Yb,Er Nanopartikel definierter Größen durch Verwendung von 2nm kubischen NaYF<sub>4</sub>:Yb,Er Nanopartikeln als Edukte**  
J. Nordmann, B. Voß, R. Komban, Universität Osnabrück/D; A. Uhl, Max-Planck-Institut für Biophysikalische Chemie, Göttingen/D; M. Haase, Universität Osnabrück/D
- P 2.35 **Fetuin-A mediated formation and ripening of colloidal calciprotein particles**  
J. Wald, S. Wiese, T. Eckert, W. Jahnen-Dechent, A. Heiss, W. Richtering, RWTH Aachen University/D
- P 2.36 **Crowding effects of the conformation and temperature-pressure stability diagram of concentrated lysozyme solutions**  
J. Markgraf, Z. Yong, R. Winter, Technische Universität Dortmund/D
- P 2.37 **Techniques for 3D tracking of marine microorganisms during surface exploration**  
G.H. Sendra, University of Heidelberg/D; S. Maleschlijski, Karlsruhe Institute of Technology – KIT/D; M. Grunze, A. Rosenhahn, University of Heidelberg/D
- P 2.38 **Aggregationsverhalten von pharmazeutisch relevanten Polymeren (Polyoxyethylen-Sorbitan-Fettsäureester) und ihre Wechselwirkung mit Proteinen**  
 C. Hoffmann, M. Rabe, A. Kerth, A. Blume, S. Bassarab, P. Garidel, Universität Halle-Wittenberg/D
- P 2.39 **Photoinduced electron and hydrogen transfer reactions of quinones in organic solvents studied with laser flash photolysis and magnetic field effects**  
 A. Mansha, S. Asim, G. Grampp, S. Landgraf, Technische Universität Graz/A
- P 2.40 **Photoinduced electron transfer reactions of triplet-benzophenonetetracarboxylic acid with adenine and adenosine in water at different pH-values**  
G. Grampp, T.X. Nguyen, A. Mansha, Technische Universität Graz/A; A.V. Yurkovskaya, N. Lukzen, International Tomography Center, Novosibirsk/RUS

Soft Matter

- P 3.01 **Bioinspired hybrid materials from lipids and nucleic acids**  
D. Berti, C. Montis, S. Milani, P. Baglioni, CSGI and Florence University, Firenze/I
- P 3.02 **Spin trapping ESR experiments with proton exchange membrane model compounds exposed to oxygen radicals**  
A.M. Dreizler, E. Roduner, Universität Stuttgart/D
- P 3.03 **The ice nucleation activity of pollens and fungal spores**  
B.G. Pummer, H. Grothe, H. Bauer, J. Bernardi, Vienna University of Technology/A
- P 3.04 **Dynamics of the local current time behaviour of nafion investigated by electrochemical atomic force microscopy**  
S. Hink, E. Roduner, Universität Stuttgart/D
- P 3.05 **Thermal behaviour of catanionic vesicles investigated by <sup>23</sup>Na and <sup>2</sup>H NMR**  
F. Asaro, University of Trieste/I; C. La Mesa, University of Rome, La Sapienza/I

- P 3.06 **Network formation in soggy sand electrolytes**  
C. Pfaffenhuber, Max-Planck-Institut für Festkörperforschung, Stuttgart/D; S. Sörgel, Deutsches Zentrum für Luft- und Raumfahrt e.V., Stuttgart/D; K. Weichert, Max-Planck-Institut für Festkörperforschung, Stuttgart/D; T. Munding, Max-Planck-Institut für Metallforschung, Stuttgart/D; M. Bele, National Institute of Chemistry Slovenia, Ljubljana/SLO; D. Samuelis, J. Maier, Max-Planck-Institut für Festkörperforschung, Stuttgart/D
- P 3.07 **TOP-free synthesis of highly monodisperse lead chalcogenides**  
S. Tschardt, M. Dietz, T. Meusel, S.G. Hickey, A. Eychemüller, Technische Universität Dresden/D
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K.R. Bickel, Karlsruher Institut für Technologie – KIT/D; R. Zahn, ETH Zürich/CH; F. Kuhn, K.D. Etzel, Karlsruher Institut für Technologie – KIT/D; T. Zambelli, J. Vörös, ETH Zürich/CH; R. Schuster, Karlsruher Institut für Technologie – KIT/D
- P 6.11 **Heats of adsorption and surface reaction for CO and O on Pd nanoparticles as determined by UHV single crystal microcalorimetry**  
J.M. Flores-Camacho, M. Peter, J.-H. Fischer-Wolfarth, Fritz Haber Institute of the Max Planck Society, Berlin/D; J.A. Farmer, C.T. Campbell, University of Washington, Seattle, WA/USA; S. Schauerer, H.-J. Freund, Fritz Haber Institute of the Max Planck Society, Berlin/D
- P 6.13 **AFM based nanoshaving for the *in-situ* study of self-assembled monolayer formation on oxide surfaces**  
B. Torun, B. Oezkaya, G. Grundmeier, Universität Paderborn/D
- P 6.14 **Blistering and layer modification of hydrogenated amorphous carbon layers induced by femtosecond laser pulse irradiation**  
A. Hertwig, R. Koter, J. Bonse, M. Weise, U. Beck, J. Krüger, Bundesanstalt für Materialforschung und -prüfung, Berlin/D; M. Picquart, E. Haro-Poniatowski, Universidad Autónoma Metropolitana Iztapalapa, México/MEX
- P 6.15 **Desorption mechanism of alcohols from titanium oxide films: TDS and *ab-initio* molecular dynamics**  
A. Marx, S. Hamann, S. Müller, H. Tresp, W. Langel, Universität Greifswald/D
- P 6.16 **New aspects to the up-scaling of the hot injection approach to provide high quality CdSe and PbSe quantum dots**  
C. Waurisch, L. Liebscher, E. Sperling, S.G. Hickey, A. Eychmüller, Technische Universität Dresden/D
- P 6.17 **Electron beam induced deposition of metallic structures from a molten salt film**  
V. Halka, R. Schuster, Karlsruhe Institute of Technology– KIT/D
- P 6.18 **Nanotribology of anion adsorption at a gold electrode: an *in-situ* electrochemical lateral force microscopy study**  
K. Klingan, C. Huber, C. Zafiu, G. Trettenhahn, W. Kautek, University of Vienna/A

- P 6.19 **Janus nanomembranes: surfaces without bulk, functionalized on both sides**  
A. Turchanin, Z. Zheng, C.T. Nottbohm, H. Muzik, A. Beyer, M. Heilemann, Universität Bielefeld/D; M. Sauer, Universität Würzburg/D; A. Götzhäuser, Universität Bielefeld/D
- P 6.20 **Electrochemical processes observed by *in-situ* time resolved surface plasmon resonance**  
A.E. Timm, C. Sigwarth, K.R. Bickel, D. Nattland, R. Schuster, Karlsruher Institut für Technologie – KIT/D
- P 6.21 **Relevance of thermal activation in low-energy electron-induced reactions of condensed methanol**  
E. Jolondz, P. Swiderek, Universität Bremen/D
- P 6.22 **Spectroscopic studies of oxidation of benzene to phenol by molecular oxygen on Cu/HY in aqueous solution**  
A. Häußer, E. Roduner, Universität Stuttgart/D
- P 6.23 **Geordnete Nanopartikel zur Erzeugung von Höheren Harmonischen**  
V. Mondes, C. Graf, J. Plenge, Q. Gao, S. Perumal, M. Buchholz, Freie Universität Berlin/D; M. Kling, Max-Planck Institut für Quantenoptik, Garching/D; E. Rühl, Freie Universität Berlin/D
- P 6.24 **Vibrational spectroscopy of platinum cluster complexes**  
D.J. Harding, C. Kerpel, G. Meijer, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D; D.M. Rayner, NRC Steacie Institute for Molecular Sciences, Ottawa/CDN; A. Fielicke, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D
- P 6.25 **Fabrication of free-standing ultrathin films of porous metal-organic-frameworks by liquid-phase epitaxy and subsequent delamination**  
H. Arslan, O. Shekhah, Ch. Wöll, Karlsruher Institut für Technologie – KIT/D
- P 6.26 ***In-situ* spektroskopische Studie des Gassensor-Mechanismus von In<sub>2</sub>O<sub>3</sub>**  
S. Sänze, C. Hess, Technische Universität Darmstadt/D
- P 6.27 ***In-situ* ramanspektroskopische Analyse der Einspeicherung von Stickstoffdioxid in Cerdioxid**  
D. Stranz, A. Filtschew, C. Hess, Technische Universität Darmstadt/D
- P 6.28 **Allophanes: nano-sized particles as basis for nano-structured and functionalised surfaces**  
M. Fuchs, R. Köster, P. Weidler, H. Gliemann, Karlsruher Institut für Technologie – KIT/D
- P 6.29 **Oscillatory forces arising from silica nanoparticles in confined geometries studied by AFM**  
Y. Zeng, S. Schön, R. von Klitzing, Technische Universität Berlin/D
- P 6.30 **Optical excitation of nanocrystallite interfaces in compressed MgO nanopowders**  
A. Sternig, University Erlangen-Nuremberg/D; K.P. McKenna, University College London/UK; D. Koller, Vienna University of Technology/A; N. Siedl, University Erlangen-Nuremberg/D; N. Govind, Pacific Northwest National Laboratory, Richland, WA/USA; O. Diwald, University Erlangen-Nuremberg/D
- P 6.31 **Analysis of interfacial molecular forces in nanoclay/polyelectrolyte nanocomposite films**  
B. Oezkaya, G. Grundmeier, University of Paderborn/D
- P 6.32 **Structures of the ordered water monolayer on MgO(001)**  
E. Carrasco, M. Sterrer, H.-J. Freund, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D; R. Wlodarczyk, K. Kwapien, M. Sierka, J. Sauer, Humboldt-Universität Berlin/D
- P 6.33 ***In-situ* investigations of the adsorption behaviour of borate on gold**  
C. Zafiu, T. Werzer, G. Trettenhahn, W. Kautek, University of Vienna/A
- P 6.34 **UV-VIS laser cleaning investigations of model contaminants on biogenetic and polymeric materials**  
S. Arif, T. Nagy, M. Forster, University of Vienna/A; S. Bushuk, A. Kuzmuk, G. Tatur, S. Batishche, National Academy of Sciences of the Republic of Belarus, Minsk/BY; W. Kautek, W. Kautek, University of Vienna/A
- P 6.35 **Combined 213 + 1440 nm laser treatment of cornea**  
S. Batishche, S. Bushuk, A. Kuzmuk, A. Savitch, G. Tatur, National Academy of Sciences of the Republic of Belarus, Minsk/BY; G. Grabner, Paracelsus Medical University (PMU), Salzburg/A; W. Kautek, University of Vienna/A
- P 6.36 **Control of chemical synthesis by electrons: the making and breaking of bonds**  
T. Hamann, E. Böhler, T. Borrmann, J.H. Bredehöft, P. Swiderek, Universität Bremen/D
- P 6.37 **Photovoltage and photoconductivity as probed by XPS**  
S. Suzer, Bilkent University, Ankara/TR
- P 6.38 **QCM-D coupled to on-chip MALDI-ToF MS (QCM-D-MALDI) a promising tool for *in-situ* characterisation of conditioning film formation**  
F. Kirschhoefer, B. Kühl, C. Prechtel, G. Brenner-Weiss, U. Obst, C. Wöll, Karlsruher Institut für Technologie – KIT/D

- P 6.39 **CO adsorption on neutral iridium clusters**  
C. Kerpál, D. Harding, G. Meijer, A. Fielicke, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D
- P 6.40 **Characterization of oxygen functional groups on HOPG sputtered with Ar<sup>+</sup> in O<sub>2</sub> and in H<sub>2</sub>O atmosphere**  
H. Li, D. Rosenthal, R. Schlögl, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D
- P 6.41 **Electronic states in nanostructured TiO<sub>2</sub> thin films**  
T. Berger, J. Anta, Universidad Pablo de Olavide, Sevilla/E
- P 6.42 **Oberflächenfunktionalisierung von nanoporösem Gold durch Titandioxid für Anwendungen in der heterogenen Katalyse**  
A. Wichmann, A. Wittstock, M. Bäumer, Universität Bremen/D
- P 6.43 **Interaction of H<sub>2</sub>O and D<sub>2</sub>O with NaCl(100)**  
S. Härtel, J. Vogt, H. Weiss, Universität Magdeburg/D
- P 6.44 **Understanding the hydrophobic nature of nano-rugged solid surfaces at the molecular scale**  
F. Leroy, Technische Universität Darmstadt/D
- P 6.45 **Molecular trapping and scattering at ionic liquid surfaces**  
A. Dorsch, S. Bierbach, M. Kalyanikar, E. Perl, M. Schöppke, Universität Leipzig/D; W. Wei, P. Wasserscheid, Universität Erlangen-Nürnberg/D; R. Denecke, Universität Leipzig/D
- P 6.46 **Optoelectrochemical investigations on PbS nanoparticle-modified electrodes**  
J. Poppe, S. Tschartke, S.G. Hickey, A. Eychmüller, Technische Universität Dresden/D
- P 6.47 **Thin MgO films in different environments**  
F. Ringleb, M.A. Brown, M. Sterrer, H.-J. Freund, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D
- P 6.48 **Differences in hydrogenation of isophorone over Pd(111) and Pd/Fe<sub>3</sub>O<sub>4</sub> from temperature programmed desorption**  
A. Savara, K. Dostert, W. Ludwig, S. Schaueremann, H.-J. Freund, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D
- P 6.49 **Surface enhanced raman scattering studies of the binding of multivalent pyridine ligands on gold surfaces**  
X. Gong, M. Taszarek, C. Graf, H.-U. Reißig, E. Rühl, Freie Universität Berlin/D
- P 6.50 **Fluorescence dependent properties of surface modified semiconductor nanocrystals**  
J. Völker, X. Ma, A. Mews, Universität Hamburg/D; M. Schmittel, Universität Siegen/D
- P 6.51 **Crosslinked gold nanoparticle films prepared via layer-by-layer spin-coating**  
J.H. Schröder, Universität Hamburg/D; H. Schlicke, University of California, Berkeley, CA/USA; M. Trebbin, Universität Bayreuth/D; H. Weller, T. Vossmeier, Universität Hamburg/D
- P 6.52 **Deposition of Pd on a single crystalline Fe<sub>3</sub>O<sub>4</sub>(111) surface from liquid phase precursors**  
H. Wang, R. Dowler, W. Kaden, M. Sterrer, H.-J. Freund, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D
- P 6.53 **Influence of surface functionalization on tribological properties**  
M. Rullich, V.C. Weiss, C. Köhler, T. Frauenheim, Universität Bremen/D
- P 6.54 **Surface science of the (-1-1-1) surface of the enantiomorphous form A of PdGa**  
D. Rosenthal, R. Wagner, R. Schlögl, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D
- P 6.55 **X-ray adsorption study of organic molecules on metal oxide surfaces**  
M. Naboka, A. Nefedov, Ch. Wöll, Karlsruhe Institute of Technology – KIT/D
- P 6.56 **HGBP1 as a model system investigated by several surface techniques**  
A. Kerstan, Ruhr-Universität Bochum/D; T. Lahnorg, Karlsruher Institut für Technologie – KIT/D; T. Vöpel, D. Zacher, Ch. Herrmann, Ruhr-Universität Bochum/D; Ch. Wöll, Karlsruher Institut für Technologie – KIT/D
- P 6.57 **UHV – FTIR – study of benzoic and terephthalic acids adsorption on rutile TiO<sub>2</sub> (110)**  
M. Kesting, Karlsruher Institut für Technologie – KIT/D; Y. Gao, M. Xu, Y. Wang, Ruhr-Universität Bochum/D; A. Nefedov, Ch. Wöll, Karlsruher Institut für Technologie – KIT/D
- P 6.58 **Thin films of MOFs prepared by liquid-phase epitaxy: Facile determination of diffusion coefficients**  
O. Zybalyo, O. Shekhah, C. Wöll, Karlsruher Institut für Technologie – KIT/D
- P 6.59 **Interaction between cobalt phthalocyanine and gold revealed by photoexcited electron spectroscopies**  
F. Petraki, H. Peisert, I. Biswas, U. Aygül, F. Latteyer, T. Chassé, University of Tübingen/D; A. Vollmer, BESSY II, Berlin/D

- P 6.60 **Single crystal adsorption calorimetry for the direct measurement of the heat of adsorption**  
S. Krähling, P. Hörtz, A. Schießler, R. Schäfer, Technische Universität Darmstadt/D
- P 6.61 **Solar2Fuel: spectroscopic investigations of a photocatalyst for CO<sub>2</sub> reduction**  
A. Keese, Karlsruher Institut für Technologie – KIT and Universität Heidelberg/D; P. Pöttinger, T. Bürgi, M. Grunze, Universität Heidelberg/D; P. Koelsch, Karlsruher Institut für Technologie – KIT and Universität Heidelberg/D
- P 6.62 **In-situ spectroscopic investigation of adsorption and reaction of pyridine molecules on Pt surfaces**  
C. Wöckel, A. Dorsch, S. Wickert, Universität Leipzig/D; R. Streber, H.-P. Steinrück, Universität Erlangen-Nürnberg/D; R. Denecke, Universität Leipzig/D
- P 6.63 **Chemical force spectroscopy studies on single crystalline zinc oxide surfaces**  
O. Ozcan, B. Oezkaya, G. Grundmeier, Universität Paderborn/D
- P 6.64 **The influence of adsorbed inorganic ions on morphology, thermal stability and surface chemistry of TiO<sub>2</sub> nanostructures: F<sup>-</sup> and SO<sub>4</sub><sup>2-</sup> anions on anatase and rutile nanowire thin films as a case study**  
G. Jurado, J. Anta, T. Berger, Universidad Pablo de Olavide, Sevilla/E
- P 6.65 **Measuring the heat of formation of metal-organic interfaces**  
O. Lytken, H.-J. Drescher, F. Bebensee, H.-P. Steinrück, J.M. Gottfried, Universität Erlangen-Nürnberg/D
- P 6.66 **Microemulsions formed by a magnetic room temperature ionic liquid – is the structure tunable by a magnetic field?**  
A. Klee, S. Prevost, M. Gradzielski, Technische Universität Berlin/D
- P 6.67 **Coverage and temperature driven isomerization of TBI on Au(111)**  
C. Gahl, Max-Born-Institut, Berlin/D; D. Brete, R. Schmidt, Max-Born-Institut and Freie Universität Berlin/D; P. Tegeder, Freie Universität Berlin/D; E.R. McNellis, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D; K. Reuter, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin and Technische Universität München, Garching/D; J. Mielke, L. Grill, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D; M. Weinelt, Max-Born-Institut and Freie Universität Berlin/D
- P 6.68 **Cathodoluminescence of electrochemically fabricated gold nanostructures**  
X. Ma, R. Schuster, Karlsruhe Institute of Technology – KIT/D

Solid State

- P 7.01 **NMR measurements on proton mobility in nano-crystalline YSZ**  
J. Hinterberg, A. Adams, B. Blümich, RWTH Aachen/D; M. Wilkening, P. Heitjans, Universität Hannover/D; S. Kim, Z.A. Munir, University of California, Davis, CA/USA; R.A. De Souza, M. Martin, RWTH Aachen/D
- P 7.02 **Zur Beziehung von Sauerstoffreduktionskinetik und Oberflächenchemie an (La,Sr)(Co,Fe)O<sub>3-x</sub> Elektroden auf festen Ionenleitern**  
G. Rupp, M. Kubicek, A. Limbeck, J. Fleig, Technische Universität Wien/A
- P 7.03 **Tunable electrical transport through annealed monolayers of monodisperse cobalt-platinum nanoparticles**  
Y. Cai, D. Wolffkühler, A. Myalitsin, Universität Hamburg/D; J. Perlich, HASYLAB/DESY, Hamburg/D; A. Meyer, C. Klinker, Universität Hamburg/D
- P 7.04 **FTIR microspectroscopy of sublimated methyl mandelate crystals as a vibrational assignment aid**  
M. Nedic, M.A. Suhm, Universität Göttingen/D
- P 7.05 **Inorganic hybrid nanocrystals: selective growth of Au domains onto pyramidal CdSe nanocrystals**  
M. Meyns, N.G. Bastús, Y. Cai, A. Kornowski, Universität Hamburg/D; B.H. Juárez, IMDEA Nanociencia, Madrid/D; H. Weller, C. Klinker, Universität Hamburg/D
- P 7.06 **Nanokristalline Nickel/Aluminium Hybrid-Schäume: Einsatz als Energieabsorber**  
A. Jung, H. Natter, S. Diebels, M.R. Koblichka, Universität des Saarlandes, Saarbrücken/D; E. Lach, Deutsch-Französisches Forschungsinstitut Saint-Louis/F; R. Hempelmann, Universität des Saarlandes, Saarbrücken/D
- P 7.07 **Molar extinction coefficient of single-wall carbon nanotubes**  
F. Schöppler, C. Mann, T. Hain, T. Hertel, Universität Würzburg/D
- P 7.08 **Comparison of electrode kinetics in air and H<sub>2</sub>/H<sub>2</sub>O atmosphere for different electrodes on yttria-stabilized zirconia electrolytes**  
M. Hoerlein, A.K. Opitz, J. Fleig, Technische Universität Wien/A
- P 7.09 **Mechanical properties of carbon and metal chalcogenide nanotubes – a comparison**  
T. Lorenz, J.-O. Joswig, G. Seifert, Technische Universität Dresden/D

## POSTER PROGRAMME

- P 7.10 **Cation impurity diffusion in the mixed conductor  $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-z}$**   
S. Harvey, R.A. De Souza, M. Martin, RWTH Aachen University/D
- P 7.11 **Aqueous synthesis of CdTe and CdHgTe semiconductor nanoparticles and preparation of thin film LEDs**  
G.M. Stachowski, P. Mundra, T. Otto, N. Gaponik, A. Eychmüller, Technische Universität Dresden/D
- P 7.12 **Oxygen diffusion in single crystal  $\text{SrTiO}_3$  substrates**  
V. Metlenko, R.A. De Souza, RWTH Aachen University/D
- P 7.13 **Strong charge transfer doping in carbon nanotube transistors by *m*-tweezer molecules**  
A. Wurl, T. Reumann, M.H. Prosenc, Universität Hamburg/D; E.M. Pérez, N. Martín, Universidad Complutense, Madrid/E; C. Klinke, Universität Hamburg/D
- P 7.14 **Structural characterization of phosphorus-based networks and clusters:  $^{31}\text{P}$  MAS-NMR spectroscopy and magnetic shielding calculations on hitorf's phosphorus**  
T. Wiegand, H. Eckert, S. Grimme, Universität Münster/D; D. Hoppe, M. Ruck, Technische Universität Dresden/D
- P 7.15 **NMR-investigations on local ion coordination motifs in polymer electrolytes**  
N. Voigt, L. van Wüllen, Universität Münster/D
- P 7.16 **Mixed aerogels from metal and semiconductor nanoparticles**  
T. Hendel, L. Kühn, V. Lesnyak, A.-K. Herrmann, N. Gaponik, A. Eychmüller, Technische Universität Dresden/D
- P 7.17 **Diffusion processes in acceptor-doped  $\text{BaTiO}_3$  used for multi-layer ceramic capacitors**  
M. Kessel, R.A. De Souza, RWTH Aachen University/D; H.-I. Yoo, Seoul National University/ROK; M. Martin, RWTH Aachen University/D
- P 7.18 **Intrinsic twist in helical  $\text{TiS}_2$  nanotubes studied with objective molecular dynamics**  
D. Teich, T. Lorenz, J.-O. Joswig, G. Seifert, Technische Universität Dresden/D
- P 7.19 **Oxygen diffusion in rare-earth-doped ceria: a Monte Carlo study**  
B.O.H. Grope, T. Zacherle, RWTH Aachen University/D; M. Nakayama, Nagoya Institute of Technology/J; M. Martin, RWTH Aachen University/D
- P 7.20 ***Ab-initio* calculation of cation migration energies in  $\text{SrTiO}_3$**   
T. Zacherle, A. Schriever, R.A. de Souza, M. Martin, RWTH Aachen University/D
- P 7.21 **Access to metastable ion conductors via mechanosynthesis - studying the formation and decomposition mechanisms of the model compound  $(\text{Ba,Sr})\text{LiF}_3$  with inverse perovskite structure**  
A. Düvel, K. Efimov, A. Feldhoff, P. Heitjans, Universität Hannover/D; S. Wegner, Bruker Biospin, Rheinstetten/D; M. Wilkening, Universität Hannover/D
- P 7.22 **Untersuchung des Magnetfeldeinflusses auf die galvanische Abscheidung von Nickel**  
M. Weinmann, A. Jung, H. Natter, R. Hempelmann, Universität des Saarlandes, Saarbrücken/D
- P 7.23 **Tuning the Li diffusivity of polycrystalline  $\text{LiBH}_4$  by interface engineering**  
V. Epp, M. Wilkening, Universität Hannover/D
- P 7.24 **Photodegradation of P3HT - a systematic study of environmental factors**  
H. Hintz, U. Dettinger, Universität Tübingen/D; H.-J. Egelhaaf, Konarka GmbH, Nürnberg/D; L. Luer, Madrid Institute for Advanced Studies/E; J. Hauch, Konarka GmbH, Nürnberg/D; H. Peisert, T. Chassé, Universität Tübingen/D
- P 7.25 **Small angle diffraction investigations on artificial and inverse opals**  
F. Marlow, M. Muldarisnur, P. Sharifi, Max-Planck-Institut für Kohlenforschung, Mülheim/D
- P 7.26 **Investigation of metal-ligand interactions using time-resolved luminescence spectroscopy**  
S.K. Kuke, M.K. Kumke, Universität Potsdam/D
- P 7.27 **Synthesis of thin aerogels on conductive layers**  
L. Kühn, T. Hendel, V. Lesnyak, N. Gaponik, A. Eychmüller, Technische Universität Dresden/D
- P 7.28 **Synthesis and characterization of amorphous  $\text{CeO}_{2-x}$ ,  $\text{HfO}_{2-x}$  and  $\text{ZrO}_{2-x}$  thin films**  
M. Crumbach, J. Brendt, M. Martin, RWTH Aachen University/D
- P 7.29 **EPR characterization of  $\text{TiO}_2$  nanotubes grown by anodization**  
G. Kúzeci, E. Roduner, Universität Stuttgart/D; M. Bestetti, Politecnico di Milano/I
- P 7.30 **Cubic ice: a consequence of disturbed ice nucleation**  
P. Baloh, F. Weiss, H. Grothe, Technische Universität Wien/A

## POSTER PROGRAMME

- P 7.31 **Kinetik der Lock-In-Phasenumwandlung von  $\text{K}_2\text{ZnCl}_4$  in Abhängigkeit vom Rubidium-Dotierungsgrad**  
K. Behrendt, H. Gibhardt, J. Leist, G. Eckold, Universität Göttingen/D
- P 7.32 **Synthesis and characterization of 4'-nitrobiphenyl grafted graphene sheets**  
D. Sievers, E. Jähne, R. Jordan, Technische Universität Dresden/D
- P 7.33 **Bombardment induced ion transport through borosilicate glass**  
P.V. Menezes, J. Martin, M. Schäfer, K.M. Weitzel, Universität Marburg/D
- P 7.34 **Solar light and dopant induced recombination effects: photoactive nitrogen in  $\text{TiO}_2$  as a case study**  
N. Siedl, University of Erlangen-Nuremberg/D; M. D'Arienzo, University of Milano Bicocca/I; A. Sternig, University of Erlangen-Nuremberg/D; R. Scotti, F. Morazzoni, University of Milano Bicocca/I; J. Bernardi, Vienna University of Technology/A; O. Diwald, University of Erlangen-Nuremberg/D
- P 7.35 **Titanate nanostructures: transformation processes in solution and in vacuum**  
M.J. Elser, Universität Erlangen-Nürnberg/D; C. Liu, Nanjing University of Technology/PRC; J. Bernardi, Technische Universität Wien/A; O. Diwald, Universität Erlangen-Nürnberg/D
- P 7.36 **A two photon study of pre-reactional excited states of benzene at high pressure**  
M. Citroni, University of Florence/I; P. Foggi, University of Perugia/I; V. Schettino, R. Bini, University of Florence/I
- P 7.37 ***In-situ* observation of the formation processes of colloidal nanoparticles**  
J. Polte, Bundesanstalt für Materialforschung und -prüfung, Berlin/D; R. Kraehnert, Technische Universität Berlin/D; K. Rademann, Humboldt-Universität Berlin/D; F. Emmerling, Bundesanstalt für Materialforschung und -prüfung, Berlin/D
- P 7.38 **Low temperature growth of carbon nanowalls and nanotube networks by (plasma-enhanced) chemical vapor deposition**  
M. Höltig, N. Reim, J. Böttcher, A. Mews, Universität Hamburg/D
- P 7.39 **Spatially resolved photoaction current spectroscopy on individual hybrid nanostructures**  
A. Myalitsin, I. Kogut, A. Mews, Universität Hamburg/D; T. Dufaux, M. Burghard, Max-Planck-Institut für Festkörperforschung, Stuttgart/D
- P 7.40 **Optical properties of alkaline earth phosphate nanocrystals**  
C. Brockschmidt, C. Middendorf, C. Nordlohne, K. Kömpe, Universität Osnabrück/D
- P 7.41 **Optical spectroscopy of single semiconductor nanocrystals close to gold nanoparticles**  
X. Ma, T. Kipp, T. Hua, A. Mews, Universität Hamburg/D
- P 7.42 **Li diffusion in monoclinic lithium metatitanate**  
B. Ruprecht, Universität Hannover/D; R. Uecker, Leibniz-Institut für Kristallzüchtung, Berlin/D; P. Heitjans, Universität Hannover/D
- P 7.43 **Simultaneous optical and EFM measurements of individual CdSe nanowires**  
S. Schäfer, Z. Wang, T. Kipp, A. Mews, Universität Hamburg/D
- P 7.44 **Synthesis and characterization of CdSe, CdTe, and CdSe-CdTe nanowires using nanocluster as precursor**  
Z. Wang, Universität Hamburg/D; Z. Li, University of Queensland/AUS; A. Kornowski, A. Mews, Universität Hamburg/D
- P 7.45 **Korngrenzen- und Grenzflächeneffekte in YSZ-Dünnschichten: Neue experimentelle Ansätze**  
M. Gerstl, Technische Universität Wien/A; E. Navickas, Technische Universität Kaunas/LT; T. Frömling, H. Hutter, J. Fleig, Technische Universität Wien/A
- P 7.46 **X-Ray absorption spectroscopy and oxygen permeation of  $\text{Ba}(\text{Co}, \text{Fe}, \text{Nb})\text{O}_{3-\delta}$  perovskites**  
J. Yi, J. Brendt, M. Schroeder, M. Martin, RWTH Aachen University/D
- P 7.47 **Microwave synthesis – a simple way to form nanoparticles**  
S. Becker, Universität Hamburg/D; J. Niehaus, CAN GmbH, Hamburg/D; V.-H. Tran, Universität Hamburg/D; D. Neß, CAN GmbH, Hamburg/D; H. Weller, Universität Hamburg and CAN GmbH/D
- P 7.48 **Formation and influence of platinum oxide on Pt/YSZ electrode kinetics**  
H. Pöpke, C. Reiß, B. Luerßen, J. Janek, Universität Gießen/D; E. Mutoro, Massachusetts Institute of Technology, Cambridge, MA/USA; L. Gregoratti, A. Matteo, Sincrotrone Trieste, Basovizza/I

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Y. Zhang, B. Wassermann, K. Kerber, N. Schröter, E. Rühl, Freie Universität Berlin/D
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 V.C. Weiss, Universität Bremen/D
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T. Morawietz, V. Sharma, J. Behler, Ruhr-Universität Bochum/D
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D. Paschek, Universität Rostock/D; R. Giernoth, Universität Köln/D; R. Ludwig, Universität Rostock/D
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V.R Vale, Universität Bremen/D; B. Rathke, Universität Bremen/D; S. Will, W. Schröer, Universität Bremen/D
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C. Roth, A. Appelhagen, R. Ludwig, Universität Rostock/D
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C. Fehling, G. Friedrichs, Universität Kiel/D