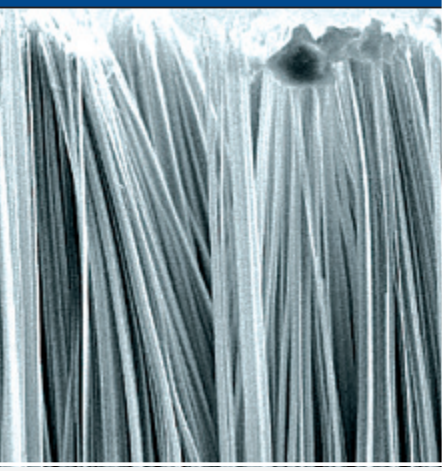
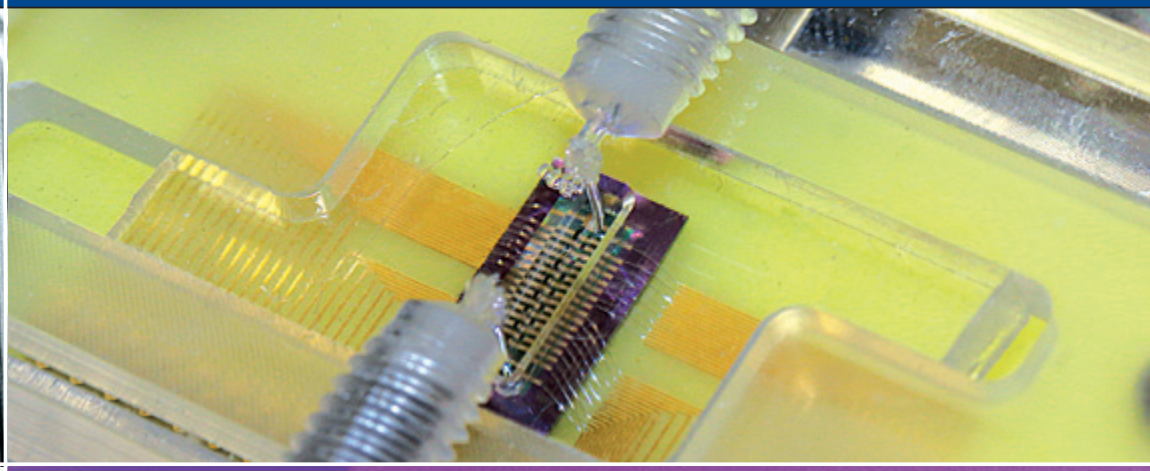
# BUNSENTAGUNG 2019

## 118th General Assembly of the German Bunsen Society for Physical Chemistry

Featuring an industrial symposium with accompanying exhibition and yPC-forum

**30 May – 1 June 2019 · Jena · Germany**





PROGRAMME

# Functional Materials

www.bunsentagung.de

EuChemS European Chemical Society — Division of Physical Chemistry

FRIEDRICH-SCHILLER-UNIVERSITÄT JENA

Leibniz ipht LEIBNIZ INSTITUTE of PHOTONIC TECHNOLOGY

STIFT Stiftung für Technologie, Innovation und Forschung Thüringen

## CONTENTS



As of 20 February 2019, subject to alterations. Presentation title and authors' information as conveyed by the corresponding author.
Correctness not warranted by the DBG.

MAIN TOPIC:

# "Functional Materials"

On the occasion of the 125th anniversary of the Bunsen Society for Physical Chemistry a warm welcome at the Bunsentagung in Jena. The city of Jena is a medium-sized city of around 105,000 inhabitants with internationally recognized research institutes and a strong optical industry. Science in Jena is lively and interdisciplinary and looks back on a long history of interdisciplinary cooperation between Carl Zeiss, Ernst Abbe and Otto Schott – the founders of the City of Light.

The focus of the 118th Bunsentagung is on functional materials. Functional materials form the core of many modern technologies, e.g., energy conversion and storage, heterogeneous catalysis, drug delivery, implants, electronic and photonic devices. The challenges in the design and characterization of modern materials are diverse and require joint research efforts across various scientific disciplines. The most challenging tasks range from elucidation of the growth mechanisms of materials, the development of novel experimental characterization tools and theoretical methods for atomistic description of materials and material properties to tailoring the interaction of materials with their environment as well as device engineering. Due to this interdisciplinary approach, Physical Chemistry is a key scientific discipline for successful achievement of these tasks.

With this background, the conference in Jena is intending to provide an insight into recent advances in such research areas like (I) materials for energy conversion and storage, (II) materials at the bio-interface, (III) 2D-materials, surfaces and interfaces for implementations in nanotechnology. We will put particular emphasis on tailored materials, materials' characterization and modelling for implementations in photo- and electrocatalysis, solar and fuel cells, batteries and supercapacitors; materials for implants, drug delivery, tissue engineering and biosensors; on recent progress and challenges associated with the integration of novel materials into devices and the development of novel experimental characterization tools and theoretical methods for atomistic description of functional materials. A number of invited, internationally recognized scientists representing highly interdisciplinary research fields across physics, chemistry, materials science and engineering will highlight these topics during the conference in Jena. Moreover, about 197 contributed talks and 308 posters will be presented at the conference.

The 118th Bunsentagung takes place together with the biannual meeting of the EuChemS Division of Physical Chemistry, which recognizes and celebrates the internationality of Physical Chemistry. The Bunsentagung 2019 will provide an excellent platform for fruitful research exchange with a focus on the application of physical and theoretical chemistry in interdisciplinary research and industrial innovations.

Finally, the meeting will be a platform for all generations of physical chemists from all throughout Europe to mix and share ideas and perspectives both on science and education and discuss avenues to tackle the scientific and societal challenges ahead of Physical Chemistry.

We are looking forward to welcoming you in Jena.

Benjamin Dietzek, Andrey Turchanin and Jürgen Popp
for the local organizing committee

# COMMITTEE / ORGANISATION

## PROGRAMME COMMITTEE

| | | | |
|---|---|---|---|
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| **Ellen Backus** | Mainz/DE | **Ralf Ludwig** | Rostock/DE |
| **Klaus Boldt** | Konstanz/DE | **Manfred Martin** | Aachen/DE |
| **Bernhard Dick** | Regensburg/DE | **Matthias Olzmann** | Karlsruhe/DE |
| **Benjamin Dietzek** | Jena/DE | **Joachim Paier** | Berlin/DE |
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| **Stefanie Gräfe** | Jena/DE | **Peter Vöhringer** | Bonn/DE |
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| **Wolfgang Kautek** | Wien/AT | **Karl-Michael Weitzel** | Marburg/DE |
| **Olaf Conrad** | Jena/DE | **Roland Winter** | Dortmund/DE |

## LOCAL AND SCIENTIFIC ORGANISERS

| | | | |
|---|---|---|---|
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| **Thomas Bocklitz** | Jena/DE | **Felix H. Schacher** | Jena/DE |
| **Volker Deckert** | Jena/DE | **Andrey Turchanin** | Jena/DE |
| **Benjamin Dietzek** | Jena/DE (chair) | **Maria Wächtler** | Jena/DE |
| **Stefanie Gräfe** | Jena/DE | **Lothar Wondraczek** | Jena/DE |
| **Rainer Heintzmann** | Jena/DE | | |

## HOST

Deutsche Bunsen-Gesellschaft für physikalische Chemie e.V.
German Bunsen Society for Physical Chemistry
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**Organisational support by:**

FRIEDRICH-SCHILLER-UNIVERSITÄT JENA

Leibniz ipht Leibniz Institute of Photonic Technology

STIFT Stiftung für Technologie, Innovation und Forschung Thüringen

LEG Thüringen State Development Corporation of Thuringia

DFG Deutsche Forschungsgemeinschaft

FCI Fonds der Chemischen Industrie

## EXHIBITION & SPONSORING

Companies are invited to participate at the accompanying exhibition. The exhibition presents a perfect opportunity to inform participants about your products and services as well as for networking. There are also various sponsoring opportunities available.

If you are interested in either exhibiting or sponsoring, please contact the Bunsen Society for Physical Chemistry (geschaeftsstelle@bunsen.de).

## LIST OF EXHIBITORS

(as of 5 February 2019)

- **Analytik Jena AG,** Jena/DE
- **Belltec,** Wesel/DE
- **Bruker Optik GmbH,** Ettlingen/DE
- **Coherent Shared Services B.V,** Dieburg/DE
- **Hiden Analytical,** Warrington/UK
- **IOP Publishing,** Bristol/UK
- **Jenabatteries GmbH,** Jena/DE
- **Landesentwicklungsgesellschaft Thüringen mbH,** Erfurt/DE
- **Pascher Instruments AB,** Lund/SE
- **PCCP – Physical Chemistry Chemical Physics – Royal Society of Chemistry,** Cambridge/UK
- **Schiller & Mertens GbR,** Jena/DE
- **Scienta Omicron GmbH,** Taunusstein/DE
- **Universität Potsdam,** Potsdam/DE
- **Wiley-VCH Verlag GmbH & Co. KGaA,** Weinheim/DE

## LIST OF SPONSORS

(as of 5 February 2019)

- **Elsevier B.V.,** Dulvendrecht/NL
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## FURTHER FINANCIAL SUPPORT

(as of 5 February 2019)

- **Deutsche Forschungsgemeinschaft (DFG),** Bonn/DE
- **Dyneon GmbH / 3M Advanced Materials Division,** Burgkirchen/DE
- **Fonds der Chemischen Industrie (FCI),** Frankfurt am Main/DE
- **SFB 1278 PolyTarget**
- **Simple Soft,** Braunschweig/DE
- **TRR234 CataLight**

# PROGRAMME AT A GLANCE

## Thursday, 30 May 2019

| | | |
|---|---|---|
| 11:30 a.m. | Seminarraum 113 | **eDu-Forum** (11:30 a.m. – 02:30 p.m.) |
| 11:30 a.m. | Hörsaal 6 | **yPC-Forum** (Karriereseminar, in German only) (11:30 a.m. – 02:30 p.m.) |
| 03:00 p.m. | Hörsaal 4 | **Ordentliche Mitgliederversammlung** (for members of the DBG only, in German) (03:00 p.m. – 04:15 p.m.) |
| 04:30 p.m. | Hörsaal 1 | **OPENING CEREMONY** (04:30 p.m. – 06:15 p.m.) |
| 06:15 p.m. | Hörsaal 1 | **OPENING LECTURE: Markus Antonietti,** Max Planck Institute of Colloids and Interfaces – Chair: A. Turchanin (06:15 p.m. – 07:00 p.m.) |
| 07:30 p.m. | Goethe Galerie | **WELCOME RECEPTION** (07:30 p.m. - 10:30 p.m.) |

## Friday, 31 May 2019

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 08:30 a.m | Hörsaal 2 | **PLENARY LECTURE: Claudia Draxl** – Chair: S. Gräfe | | | | | |
| | Hörsaal 2 | Hörsaal 5 | Hörsaal 4 | Rosensäle Kleiner Saal | Rosensäle Großer Saal | Hörsaal 7 | Hörsaal 8 |
| | **Main Topic:** Nanomaterials, Photonics | **Main Topic:** Materials for Energy, Perovskite and more | **Biophys. Chem. / Biophotonics** | **Catalysis and Electrochemistry** | **Spectroscopy** | **Kinetics & Dynamics** | **Spectroscopy** |
| | *J. Lauth* | *M. Presselt* | *E. Cortés* | *U. I. Kramm* | *R. Ludwig* | *A.-N. Unterreiner* | *M. Gerhards* |
| 09:25 a.m. | Hertel | de Souza | Davis | Heber | Keppler | Wrede | Bernhard |
| 09:45 a.m. | Wächtler | Kim | Schiemann | Draber | Yachmenev | Wondraczek | Sebastiani |
| 10:05 a.m. | Boldt | Rettenmaier | Heckel | Parras | Lehmann | **INVITED LECTURE** Weidner * | Pinacho |
| 10:25 a.m. | Schlosser | Lorenz | Clasen | Tichter | Brehm | | Di Martino |
| 10:45 a.m. | COFFEE BREAK | | | | | | |
| | **Main Topic:** 2D Materials | **Main Topic:** Materials for Energy | **Biophys. Chem. / Biophotonics** | **Catalysis and Electrochemistry** | **Spectroscopy** | **Reaction Kinetics & Dynamics** | **Spectroscopy** |
| | *J. Paier* | *B. Dietzek* | *P. Rösch* | *T. Gutmann* | *I. Fischer* | *P. Nürnberger* | *M. Schnell* |
| 11:05 a.m. | Dementyev | **INVITED LECTURE** Berlinguette | Hinderberger | Bernhardt | Amirjalayer | Otto | Jha |
| 11:25 a.m. | George | | Kaiser | Wittkämper | Schleier | Weber | Graf |
| 11:45 a.m. | Paulus | Uhlig | Tunn | Wagner | Johny | Hemberger | Kjaervik |
| 12:05 p.m. | Papp | Etter | Samanta | Kräuter | Thom | van der Linde | Buessler |
| 12:25 p.m. | LUNCH BREAK | | | | | | |
| 01:25 p.m. | Hörsaal 2 | **PLENARY LECTURE: Mark C. Hersam** – Chair: A. Turchanin | | | | | |
| | Hörsaal 2 | Hörsaal 5 | Hörsaal 4 | Rosensäle Kleiner Saal | Rosensäle Großer Saal | Hörsaal 7 | Hörsaal 8 |
| | **Main Topic:** Nanoparticles | **Main Topic:** Materials for Energy, (Photo-) Catalysis | **Main Topic:** Materials for Life Science: Sensors | **Catalysis and Electrochemistry** | **Spectroscopy** | **Reaction Kinetics & Dynamics** | **Transport / Storage** |
| | *K. Boldt* | *M. Wächtler* | *F. Schacher* | *T. Bernhardt* | *C. Reichardt* | *R. Kutta* | *L. Medenbach* |
| 02:20 p.m. | Mascotto | Fellinger | **INVITED LECTURE** Torsi | Hetaba | Li | Schäfer | Schwab |
| 02:40 p.m. | Maier | Uxa | | Sabadasch | Micheel | Chopra | Schäfer |
| 03:00 p.m. | Castillo Delgadillo | Stein | Kaiser | Rosebrock | Honegger | Dick | Bonkowski |
| 03:20 p.m. | Lox | Kramm | Mann | Schlücker | Musso | Meyer | Kern |
| 03:40 p.m. | Zobel | Baloglou | Rabe | Strunskus | Korinth | Frank | Usler |
| 04:00 p.m. | COFFEE BREAK | | | | | | |
| | **Main Topic:** Surfaces and Interfaces | **Main Topic:** Materials for Energy, Light Harvesting | **Main Topic:** Materials for Life Science: Sensors and Manipulation | **Catalysis and Electrochemistry** | **Spectroscopy** | **Photoinduced Kinetics & Dynamics** | **Spectroscopy** |
| | *D. Zámbó* | *S. Tschierlei* | *S. Kupfer* | *W. Kautek* | *M. Micheel* | *B. Dick* | *O. Diwald* |
| 04:20 p.m. | Gottfried | Balducci | Kutta | Cortés | **INVITED LECTURE** Westenhoff * | Petersen | Oncak |
| 04:40 p.m. | Heinke | Choi | Pacholski | Maier | | Reichardt | Strelnikov |
| 05:00 p.m. | Springborg | Kozlowska | Cialla-May | Melke | Straub | Mims | Zamudio |
| 05:20 p.m. | Borodin | Walla | Stubenrauch | **INVITED LECTURE** Vesselli * | Michenfelde | Noei | Niedermaier |
| 05:40 p.m. | Daru | Steinhauer | Börsch | | Scheibinger | Schaefer | Höfer |
| 06:00 p.m. | **POSTER SESSION** (even numbers) | | | | | | |
| 07:25 p.m. | Break from 07:25 – 07:35 p.m. to switch posters | | | | | | |
| 07:35 p.m. | **POSTER SESSION** (odd numbers) | | | | | | |

## Saturday, 1 June 2019

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 08:30 a.m | Hörsaal 2 | PLENARY LECTURE: **Aránzazu del Campo Bécares** – Chair: J. Popp | | | | | |
| | Hörsaal 4 | Hörsaal 5 | Seminarraum 114 | Hörsaal 2 | Hörsaal 7 | Hörsaal 8 | Seminarraum 113 |
| | **Main Topic:** Materials for Life Science: Photoresponsive Materials | **Main Topic:** Materials for Energy Storage | **Main Topic:** Nanomaterials, Catalysis | **Award Winners** | **Spectroscopy** | **Biophys. Chem./ Biophotonics** | **Theory / Data Science** |
| | *M. Rohnke* | *A. Balducci* | *U. I. Kramm* | *J. Janek* | *E. Rühl* | *T. Kottke* | *D. Mollenhauer* |
| 09:25 a.m. | López de Guereñu | Adelhelm | Pfuhl | van't Hoff | INVITED LECTURE Kukura * | Rösch | Marquetand |
| 09:45 a.m. | Homann | Renner | Li | Ewald-Wicke | | Metcalfe | Kühn |
| 10:05 a.m. | Stafast | Eckhoff | Hess | Nernst-Haber-Bodenstein | Friedrichs | Fritzsche | Neumann |
| 10:25 a.m. | Kryschi | Groß | Waldow | DFG | Felber | Frosch | Hühn |
| 10:45 a.m. | COFFEE BREAK | | | | | | |
| | **Main Topic:** Materials for Life Science: Protein/Cell Interactions | **Main Topic:** Materials for Energy Storage | **Main Topic:** 2D Materials and Thin films | **Main Topic:** Nanomaterials and Devices | **Spectroscopy** | **Biophys. Chem./ Biophotonics** | **Theory / Data Science** |
| | *M. Scheele* | *P. Adelhelm* | *F. Gießelmann* | *K. Al-Shamery* | *S. Schlücker* | *R. Heintzmann* | *P. Marquetand* |
| 11:05 a.m. | Garidel | Walther | Stannarius | Lauth | Landgraf | INVITED LECTURE Sauer | König |
| 11:25 a.m. | Wiegand | Chen | Kautek | Kenmoe | Deckert | | Mollenhauer |
| 11:45 a.m. | Rudt | Gerlach | Böttcher | Hofmann | INVITED LECTURE Graham | Eggeling | Bocklitz |
| 12:05 a.m. | Berret | Schmidt | Koehler | Timm | | Goett-Zink | Ali |
| 12:25 p.m. | LUNCH BREAK | | | | | | |
| 01:25 p.m. | Hörsaal 2 | PLENARY LECTURE: **Ute Kaiser** – Chair: B. Dietzek | | | | | |
| | Hörsaal 4 | Hörsaal 5 | Seminarraum 114 | Hörsaal 2 | Hörsaal 7 | Hörsaal 8 | Seminarraum 113 |
| | **Main Topic:** Materials for Life Science: Drug Delivery, Responsive Materials | **Main Topic:** Materials for Energy, Polymers and Porous Materials | **Main Topic:** Nanomaterials, Advanced Techniques | **Main Topic:** Polymer Materials | **Spectroscopy** | **NMR** | **Thermodynamics** |
| | *J. Simmchen* | *C. Stubenrauch* | *V. Deckert* | *E. Vesselli* | *H. Stafast* | *K.-M. Weitzel* | *A. Böttcher* |
| 02:20 p.m. | Blank | Niefind | Ernst | INVITED LECTURE Fery | Cyran | Avila Salazar | Rathke |
| 02:40 p.m. | Rohnke | Strunskus | Schulze | | Ulrich | Overbeck | Mezger |
| 03:00 p.m. | Schacher | Meerholz | Koch | Wöll | Braunschweig | Gutmann | Markthaler |
| 03:20 p.m. – 03:40 p.m. | Gradzielski | Russina | Bourret | Hellweg | INVITED LECTURE Suzer * | Doerenkamp | Schwab |
| 03:45 p.m. | Hörsaal 2 | Poster Awards and Closing Session | | | | | |

Presentations invited by EuChemS are marked with an *

## OPENING LECTURE

**Thursday, 30 May 2019**

06:15 p.m. – 07:00 p.m.
**Using Molecular Heterojunctions for Chemistry: About Photosynthesis, new Electrochemistry, and Artificial Ion Pumps**
M. Antonietti, Potsdam/DE

## PLENARY LECTURES

**Friday, 31 May 2019**

08:30 a.m. – 09:10 a.m.
**Towards the Fourth Paradigm of Materials Science**
C. Draxl, Berlin/DE

01:25 p.m. – 02:05 p.m.
**Controlling and Tailoring the Electronic Properties of Chemically Reactive 2D Materials**
M. C. Hersam, Evanston/US

**Saturday, 1 June 2019**

08:30 a.m. – 09:10 a.m.
**Engineered Living Materials**
A. del Campo Bécares, Saarbrücken/DE

01:25 p.m. – 02:05 p.m.
**Atom-by-atom functionalisation of low-dimensional materials**
U. Kaiser, Ulm/DE

## INVITED LECTURES

**Friday, 31 May 2019**

11:05 a.m. – 11:45 a.m.
**Electrolytic hydrogen without $H_2$**
C. P. Berlinguette, Vancouver/CA

02:20 p.m. – 03:00 p.m.
**Single Molecule Detection of Markers With a Label-Free Bio-Electronic Sensor**
L. Torsi, Bari/IT

**Saturday, 1 June 2019**

11:05 a.m. – 11:45 a.m.
**Super-resolution microscopy by *d*STORM: From concepts to biomedical applications**
M. Sauer, Würzburg/DE

11:45 a.m. – 12:25 p.m.
**Raman and SERS Spectroscopy for Bioanalysis**
D. Graham, Glasgow/UK

02:20 p.m. – 03:00 p.m.
**A colloidal approach towards mechano-sensitive plasmonic structures**
A. Fery, Dresden/DE

## INVITED LECTURES EuChemS

**Friday, 31 May 2019**

10:05 a.m. – 10:45 a.m.
**How proteins make glass and ice – a molecular view**
T. Weidner, Aarhus/NL

04:20 p.m. – 05:00 p.m.
**Ultrafast X-ray scattering of chemical reactions**
S. Westenhoff, Gothenburg/SE

05:20 p.m. – 06:00 p.m.
**Vibronic and chemical properties of supported single metal atom catalysts**
E. Vesselli, Trieste/IT

**Saturday, 1 June 2019**

09:25 a.m. – 10:05 a.m.
**Weighing single molecules with light**
P. Kukura, Oxford/UK

03:20 p.m. – 03:40 p.m.
**X-Ray Photoelectron Spectroscopy; a Chemical Tool for Electrochemical Analyses of Potential Developments at Liquid/Solid Interfaces**
S. Suzer, Ankara/TR

## MEETINGS OF THE GERMAN BUNSEN SOCIETY

| Thursday, 30 May 2019 | | | |
|---|---|---|---|
| 01:00 p.m. – 03:00 p.m. | **Sitzung der Themenkommission*** | (on invitation only) | Seminarraum 114 |
| 09:00 a.m. – 11:00 a.m. | **Sitzung des Ständigen Ausschusses*** | (on invitation only) | Seminarraum 114 |
| 11:30 a.m. – 02:30 p.m. | **eDu-Forum*** | Supported by eduVote (www.eduVote.de) | Seminarraum 113 |
| 11:30 a.m. – 02:30 p.m. | **yPC-Forum*** | | Hörsaal 6 |
| 02:30 p.m. – 03:00 p.m. | **Sitzung der Studienkommission*** | (on invitation only) | Seminarraum 113 |
| 03:00 p.m. – 04:15 p.m. | **Ordentliche Mitgliederversammlung*** | (for members of the DBG only) | Hörsaal 4 |

| Friday, 31 May 2019 | | | |
|---|---|---|---|
| 12:25 p.m. – 01:25 p.m. | **Presentation Wiley-VCH** | | Hörsaal 7 |
| 12:25 p.m. – 01:25 p.m. | **Women's networking lunch** | (registration required) | Rosensäle SR 103 |
| 09:00 p.m. | **yPC Networking evening** | | Theatercafé |

| Saturday, 1 June 2019 | | |
|---|---|---|
| 12:25 p.m. – 01:25 p.m. | **yPC Mitgliederversammlung*** (for all members of the Bunsen Society below 40 years of age and without a professorship) | Hörsaal 4 |

* in German only

## LECTURE PROGRAMME

### Thursday, 30 May 2019

| | Friedrich-Schiller-Universität Jena, Ernst-Abbe-Campus, Carl-Zeiß-Straße 3 |
|---|---|
| 11:30 a.m. – 02:30 p.m. | **eDu-Forum** |
| 11:30 a.m. – 02:30 p.m. | **yPC-Forum**<br>(Karriereseminar, in German only) |
| 03:00 p.m. – 04:15 p.m. | Ordentliche Mitgliederversammlung<br>(for members of the DBG only, in German) |
| 04:30 p.m. – 06:15 p.m. | OPENING CEREMONY |
| 06:15 p.m. – 07:00 p.m. | OPENING LECTURE<br>**Using Molecular Heterojunctions for Chemistry: About Photosynthesis, new Electrochemistry, and Artificial Ion Pumps**<br>Markus Antonietti, Max Planck Institute of Colloids and Interfaces |
| | **Goethe Galerie Jena** |
| 07:30 p.m. – 10:30 p.m. | WELCOME RECEPTION |

## LECTURE PROGRAMME

### Friday, 31 May 2019 — Morning

| | Hörsaal 2 | Hörsaal 5 | |
|---|---|---|---|
| | *Chair: S. Gräfe* | | |
| 08:30 a.m. | **PLENARY LECTURE**<br>**Towards the Fourth Paradigm of Materials Science**<br>C. Draxl, Berlin/DE | | 08:30 a.m. |
| | **Main Topic:**<br>Nanomaterials, Photonics | **Main Topic:**<br>Materials for Energy, Perovskite and more | |
| | *J. Lauth* | *M. Presselt* | |
| 09:25 a.m. | **Redox and electrochemical doping of nanoscale semiconductors**<br>T. Hertel, Würzburg/DE, K.H. Eckstein, F. Oberndorfer, M. Auth, A. Sperlich, V. Dyakonov, Würzburg/DE | **Iodide-ion transport in methylammonium lead iodide perovskite: some surprising aspects**<br>R. A. De Souza, Aachen/DE, D. Barboni, D. Kemp, Aachen/DE | 09:25 a.m. |
| 09:45 a.m. | **Charge-carrier separation in systems for light-driven hydrogen generation based on colloidal semiconductor nanostructures**<br>M. Wächtler, Jena/DE | **Huge photo-effect on ion conduction and implications for photodecomposition in hybrid lead halides perovskite**<br>G. Y. Kim, Stuttgart/DE, A. Senocrate, T. – Y. Yang, G. Gregori, Stuttgart/DE, M. Grätzel, J. Maier, Lausanne/CH | 09:45 a.m. |
| 10:05 a.m. | **Switchable Dissociation of Excitons Bound at Strained CdTe/CdS Interfaces**<br>K. Boldt, Konstanz/DE, F. Enders, A. Budweg, Konstanz/DE, P. Zeng, Melbourne/AU, J. Lauth, Delft/NL, T. A. Smith, Melbourne/AU, D. Brida, Konstanz/DE | **Capacitive behavior of ZnO/$ZnMnO_3$ composite electrodes**<br>K. Rettenmaier, Salzburg/AT, G. Zickler, T. Berger, Salzburg/AT | 10:05 a.m. |
| 10:25 a.m. | **CdSe nanoplatelet cryoaerogel photoelectrodes for application in photoelectrochemical sensing**<br>A. Schlosser, Hannover/DE, L. C. Meyer, F. Lübkemann, J. F. Miethe, N. C. Bigall, Hannover/DE | **Photovoltaic Tweezers for Optical Manipulation in Liquid Crystals and Dielectric Fluids**<br>A. Lorenz, Paderborn/DE | 10:25 a.m. |
| 10:45 a.m. | COFFEE BREAK | | 10:45 a.m. |
| | **Main Topic:**<br>2D Materials | **Main Topic:**<br>Materials for Energy | |
| | *J. Paier* | *B. Dietzek* | |
| 11:05 a.m. | **Vapour separation with carbon nanomembranes**<br>P. Dementyev, Bielefeld/DE, T. Wilke, D. Naberezhnyi, A. Gölzhäuser, Bielefeld/DE | **INVITED LECTURE**<br>**Electrolytic hydrogen without $H_2$**<br>C. P. Berlinguette, Vancouver/CA | 11:05 a.m. |
| 11:25 a.m. | **Controlled growth of transition metal dichalcogenide monolayers using Knudsen-type effusion cells for the precursors**<br>A. George, Jena/DE, C. Neumann, D. Kaiser, R. Mupparapu, Jena/DE, T. Lehnert, Ulm/DE, U. Hübner, Z. Tang, A. Winter, U. Kaiser, I. Staude, A. Turchanin, Jena/DE | | 11:25 a.m. |
| 11:45 a.m. | **Ab initio calculations of optical and transport properties of functionalized graphene**<br>B. Paulus, Berlin/DE, J. Shao, L.E. Marsoner Steinkasserer, Berlin/DE | **Ultrafast electron dynamics in real world light activated complexes studied by x-ray spectroscopy**<br>J. Uhlig, Lund/SE, A. Huiser, Twente/NL, W.R. Browne, Groningen/NL, M. Guo, K. Kjaer, P.Chabera, Y. Liu, O. Prakash, K. Waernmark, P. Persson, Lund/SE | 11:45 a.m. |
| 12:05 p.m. | **Functionalization of 2D Materials**<br>C. Papp, Erlangen/DE | **P02:1 – The Powder Diffraction and Total Scattering Beamline at PETRAIII, DESY. – Part I (Talk)**<br>M. Etter, Hamburg/DE, A. Schökela, J.-C. Tsenga, S. Wenza, M. Wendta, M. T. Wharmbya, Hamburg/DE | 12:05 p.m. |
| 12:25 p.m. | LUNCH BREAK | | 12:25 p.m. |
| 12:25 p.m. | **Women's Networking Lunch** *Rosensäle SR 103* | | 12:25 p.m. |

## Friday, 31 May 2019 — Morning

| | Hörsaal 2 | |
|---|---|---|
| | *Chair: S. Gräfe* | |
| 08:30 a.m. | **PLENARY LECTURE**<br>**Towards the Fourth Paradigm of Materials Science**<br>C. Draxl, Berlin/DE | 08:30 a.m. |

| | Hörsaal 4 | Rosensäle Kleiner Saal | |
|---|---|---|---|
| | **Biophysical Chemistry / Biophotonics** | **Catalysis and Electrochemistry** | |
| | *S. Kruss* | *U. I. Kramm* | |
| 09:25 a.m. | **Infrared Spectroelectrochemical Studies of Oxygen-Tolerant [NiFe] Hydrogenase Immobilized on Transparent Conducting Oxides for Hydrogen Oxidation and Evolution**<br>V. Davis, Freiburg/DE, N. Heidary, Cambridge/UK, S. Frielingsdorf, O. Lenz, . Zebger, Berlin/DE, A. Fischer, Freiburg/DE | **Monitoring SEI components on cathode material: An *in situ* surface enhanced Raman study on Li-ion batteries**<br>M. Heber, Darmstadt/DE, C. Hess, Darmstadt/DE | 09:25 a.m. |
| 09:45 a.m. | **EPR-Based Localization of High- and Low-Spin Metal Ions in Model Systems and Proteins**<br>O. Schiemann, Bonn/DE, D. Abdullin, N. Fleck, P. Brehm, G. Hagelueken, Bonn/DE | **Kinetic Monte Carlo simulations on proton and oxygen vacancy conductivity in doped $BaZrO_3$**<br>F. M. Draber, Aachen/DE; I. K. Sommerfeld, S. Eisele, J. P. Arnold, M. Martin, Aachen/DE | 09:45 a.m. |
| 10:05 a.m. | **Light-switchable particle interactions**<br>S. Heckel, Dresden/DE, A. Magazzu, G. Volpe, Gothenburg/SE, J. Simmchen, Dresden/DE | **The grain-boundary resistance of $Ce_{0.999}Y_{0.001}O_{1.9995}$: a simulation study of a dilute solution**<br>J. P. Parras, Aachen/DE, C. Cao, R. Mücke, O. Guillon, Jülich/DE, R.A. De Souza, Aachen/DE | 10:05 a.m. |
| 10:25 a.m. | **Fluorescently labelled silica nanoparticles as pH-sensors**<br>A. Clasen, Saarbrücken/DE, A. Kraegeloh, G. Jung, Saarbrücken/DE | **Cyclic voltammetry in finite external cylindrical diffusion space applied to carbon felt electrodes for vanadium redox-flow batteries**<br>T. Tichter, Berlin/DE, D. Andrae, J. Schneider, C. Roth, Berlin/DE | 10:25 a.m. |
| 10:45 a.m. | COFFEE BREAK | | 10:45 a.m. |

| | Hörsaal 4 | Rosensäle Kleiner Saal | |
|---|---|---|---|
| | **Biophysical Chemistry / Biophotonics** | **Catalysis and Electrochemistry** | |
| | *P. Rösch* | *S. Maier* | |
| 11:05 a.m. | **Charge-Dependent Myelin Basic Protein–Lipid Interactions in Myelin-Like Lipid Monolayers**<br>D. Hinderberger, Halle (Saale)/DE, K. Widder, J. Träger, A. Kerth, Halle (Saale)/DE, G. Harauz, Ontario/CA | **Biomimetic calcium-manganese-oxide clusters for water oxidation and hydrogen evolution**<br>T. M. Bernhardt, Ulm/DE, S. M. Lang, Ulm/DE, I. Fleischer, Ulm/DE, S. Mauthe, Ulm/DE, N. T. Zimmermann, Ulm/DE | 11:05 a.m. |
| 11:25 a.m. | **The Bunsen-Roscoe Law and the Influence of Visible Light on the Integrity of Therapeutic Proteins**<br>W. Kaiser, Biberach/DE, M. Blech, T. Schultz-Fademrecht, P. Garidel, Biberach/DE | **Spectroscopic Insights to Liquid Rh-Ga Alloys for Effective Propane Dehydrogenation**<br>H. Wittkämper, Erlangen/DE, N. Raman, Erlangen/DE, M. Grabau, Erlangen/DE, S. Maisel, Erlangen/DE, N. Taccardi, Erlangen/DE, J. Debuschewitz, Erlangen/DE, T. Bauer, Erlangen/DE, M. Wu, Erlangen/DE, M. Haumann, Erlangen/DE, A. Görling, Erlangen/DE, E. Spiecker, Erlangen/DE, J. Libuda, Erlangen/DE, P Wasserscheid, Erlangen/DE, H.-P. Steinrück, Erlangen/DE, C. Papp, Erlangen/DE | 11:25 a.m. |
| 11:45 a.m. | **Tuning the Mechanical Properties of Coiled Coil-crosslinked Hydrogels with Histidine-Metal Coordination**<br>I. Tunn, Potsdam/DE, M. J. Harrington, Montreal/CA, K.G. Blank, Potsdam/DE | **Analysis of the structural composition of the Fe-N-C catalyst by nuclear resonance techniques**<br>S. Wagner, Darmstadt/DE, H. Auerbach Kaiserlautern/DE, C. Tait, Berlin/DE, I. Martinaiou, Darmstadt/DE, I. Sergeev, H.C. Wille, Hamburg/DE, J. Behrends, Berlin/DE, V. Schünemann, Kaiserslautern/DE, U.I. Kramm, Darmstadt/DE | 11:45 a.m. |
| 12:05 p.m. | **Cold and controlled nanoparticle beams for single-particle diffractive imaging**<br>A. K. Samanta, Hamburg/DE, A. Estillore, M. Amine, N. Roth, L. Worbs, N. Pohlmann, D. A. Horke, J. Küpper, Hamburg/DE | **Reaction Studies on Titania Rutile(110): Thermal vs. Photo Catalysis**<br>J. Kräuter, Oldenburg/DE, L. Mohrhusen, K. Al-Shamery, Oldenburg/DE | 12:05 p.m. |
| 12:25 p.m. | LUNCH BREAK | | 12:25 p.m. |
| 12:25 p.m. | **Women's Networking Lunch** *Rosensäle SR 103* | | 12:25 p.m. |

## Friday, 31 May 2019 — Morning

### Hörsaal 2

*Chair: S. Gräfe*

**08:30 a.m.**

**PLENARY LECTURE**
**Towards the Fourth Paradigm of Materials Science**
C. Draxl, Berlin/DE

### Rosensäle Großer Saal — Spectroscopy

*R. Ludwig*

**09:25 a.m.**

**High Resolution Spectroscopy of Monodeutero-oxirane from the Gigahertz and Terahertz to the Infrared Range**
K. Keppler, Zürich/CH, S. Albert, C. Manca Tanner, M. Quack, Zürich/CH, Z. Chen, Lanzhou/CN, J. Stohner, Zürich/CH, P. Lerch, Villigen/CH, O. Trapp, München/DE, V. Schurig, Tübingen/DE

**09:45 a.m.**

**Creating, imaging, and controlling chiral molecules with electric fields**
A. Yachmenev, Hamburg/DE, A. Owens, J. Küpper, Hamburg/DE

**10:05 a.m.**

**Coincident measurement of photoion circular dichroism and photoelectron circular dichroism**
C. S. Lehmann, Marburg/DE, S.T. Brötz, K.-M. Weitzel, Marburg/DE

**10:25 a.m.**

**Computing Bulk Phase Infrared, Raman, VCD, and ROA Spectra from ab initio Molecular Dynamics**
M. Brehm, Halle (Saale)/DE, M. Thomas, Halle (Saale)/DE

### Hörsaal 7 — Kinetics & Dynamics

*A. – N. Unterreiner*

**09:25 a.m.**

**Time-resolved small angle neutron scattering investigation of the swelling kinectics of N-n-propylacrylamide based microgels**
O. Wrede, Bielefeld/DE, Y. Reimann, Köln/DE, S. Lülsdorf, Stuttgart/DE, D. Emmrich, Bielefeld/DE, K. Schneider, Stuttgart/DE, A.J. Schmid, Y. Hannappel, A. Beyer, Bielefeld/DE, R. Schweins, Grenoble/FR, A. Gölzhäuser, T. Hellweg, Bielefeld/DE, T. Sottmann, Stuttgart/DE

**09:45 a.m.**

**Kinetics of decelerated melting**
L. Wondraczek, Jena/DE

**10:05 a.m.**

**INVITED LECTURE**
**How proteins make glass and ice – a molecular view***
T. Weidner, Aarhus/DK

**10:45 a.m.** COFFEE BREAK

### Rosensäle Großer Saal — Spectroscopy

*I. Fischer*

**11:05 a.m.**

**Photo-induced Pedalo-type Motion in an Azodicarboxamide-based Molecular Switch**
D. Amirjalayer, Münster/DE, A. Martinez-Cuezva, J. Berna, Murcia/ES, S. Woutersen, W. J. Buma, Amsterdam/NL

**11:25 a.m.**

**Diborene: Generation and Photoelectron Spectroscopy of an Inorganic Biradical**
D. Schleier, Würzburg/DE, A. Humeniuk, E. Reusch, Würzburg/DE, F. Holzmeier, Paris/FR, D. Nunez-Reyes, Bordeaux/FR, C. Alcaraz, G. A. Garcia, Paris/FR, J. Loison, Bordeaux/FR, I. Fischer, R. Mitric, Würzburg/DE

**11:45 a.m.**

**Photophysics of pyrrole and pyrrole-water clusters**
M. Johny, Hamburg/DE, J. Onvlee, Hamburg/DE, C. Schouder, Aarhus/NL, A. Al-Refaie, T. Kierspel, Hamburg/DE, H. Stapelfeldt, Aarhus/NL, S. Trippel, J. Küpper, Hamburg/DE

**12:05 p.m.**

**OLED Emitters making use of Upper Triplet States**
K. Thom, Düsseldorf/DE, S. Djalali, P. Gilch, Düsseldorf/DE

### Hörsaal 7 — Reaction Kinetics & Dynamics

*P. Nürnberger*

**11:05 a.m.**

**Aqueous-Phase Oxidation of Isoprene Epoxydiol (IEPOX)**
T. Otto, Leipzig/DE, T. Schaefer, H. Herrmann, Leipzig/DE

**11:25 a.m.**

**The unimolecular decomposition of dimethoxymethane: An experimental and theoretical study**
I. Weber, Karlsruhe/DE, L. Golka, D. Gratzfeld, M. Olzmann, Karlsruhe/DE

**11:45 a.m.**

**How the methyl group position influences the ultrafast deactivation in aromatic radicals**
P. Hemberger, Villigen/CH, M. Steglich, G. Knopp, Villigen/CH

**12:05 p.m.**

**$CO_3^{\bullet-}$: Electron catalyzed reactions in the gas phase studied by FT-ICR mass spectrometry and quantum chemistry**
C. van der Linde, Innsbruck/AT, W. K. Tang, C.-K. Siu, Hong Kong/HK, M. K. Beyer, Innsbruck/AT

**12:25 p.m.** LUNCH BREAK

**12:25 p.m.** **Presentation Wiley-VCH** *Hörsaal 7*

**12:25 p.m.** **Women's Networking Lunch** *Rosensäle SR 103*



Presentations invited by EuChemS are marked with an *

## Friday, 31 May 2019 — Morning

**Hörsaal 2**

*Chair: S. Gräfe*

08:30 a.m. — **PLENARY LECTURE**
**Towards the Fourth Paradigm of Materials Science**
C. Draxl, Berlin/DE

**Hörsaal 8**

**Spectroscopy**

*M. Gerhards*

09:25 a.m. — **Dispersion controlled formation of isolated dimers: Observation of an unusually short C-H…H-C distance in the gas phase via stimulated Raman spectroscopy**
D. Bernhard, Kaiserslautern/DE, D. Maué, P. H. Strebert, Kaiserslautern/DE, S. Rösel, P. R. Schreiner, Gießen/DE, M. Gerhards, Kaiserslautern/DE

09:45 a.m. — **Water confined in supramolecular clusters by THz spectroscopy**
F. Sebastiani, Bochum/DE, T. A. Bender, Berkeley/US, G. Schwaab, Bochum/DE, R. G. Bergmann, K. N. Raymond, Berkeley/US, M. Havenith, Bochum/DE

10:05 a.m. — **The different docking sites of diadamanthyl ether revealed by highresolution microwave spectroscopy**
P. Pinacho, Hamburg/DE, M. M. Quesada-Moreno, C. Pérez, M. Fatima, Hamburg/DE, M. Sekutor, P. R. Schreiner, Gießen/DE, M. Schnell, Hamburg/DE

10:25 a.m. — **Investigation of structures and electronic states of transition metal containing complexes via transient FTIR spectroscopy**
P. Di Martino-Fumo, Kaiserslautern/DE, P. Boden, Kaiserslautern/DE, J. Busch, Karlsruhe/DE, S. Otto, K. Heinze, Mainz/DE, S. Bräse, Karlsruhe/DE, M. Gerhards, Kaiserslautern/DE

10:45 a.m. — COFFEE BREAK

**Hörsaal 8**

**Spectroscopy**

*M. Schnell*

11:05 a.m. — **Intermolecular Vibrations Drive Ultrafast Singlet Fission**
A. Jha, Hamburg/DE, H.-G. Duan, Hamburg/DE, X. Li, Stanford/UK, V. Tiwari, Hamburg/DE, H. Ye, P. K. Nayak, Oxford/UK, X.-L. Zhu, Stanford/UK, Z. Li, Hamburg/DE, T. J. Martinez, Stanford/UK, M. Thorwart, J. D. Miller, Hamburg/DE

11:25 a.m. — **A semi-empirical approach for the calculation of temperature profiles in laminar low-pressure flames**
I. Graf, Bielefeld/DE, A. Brockhinke, Bielefeld/DE

11:45 a.m. — **Investigations of HKUST-1 exposed to pyridine, methanol and water vapor by near-ambient pressure XPS**
M. Kjærvik, Berlin/DE, P. Dietrich, A. Thissen, Berlin/DE A. Nefedov, C. Wöll, Eggenstein-Leopoldshafen/DE, W. Unger, Berlin/DE

12:05 p.m. — **3D automatic laser-induced breakdown spectroscopy mapping: influence of laser beam focusing**
M. Buessler, Wien/AT, U. Pacher, L. Brandfellner, P. Plata, A. Kovàcs, A. Feldner, M. J. J. Weimerskirch, T. O. Nagy, W. Kautek Wien/AT

12:25 p.m. — LUNCH BREAK

12:25 p.m. — **Women's Networking Lunch** *Rosensäle SR 103*

## Friday, 31 May 2019 — Afternoon

### Hörsaal 2

*Chair: A. Turchanin*

01:25 p.m. — **PLENARY LECTURE**
**Controlling and Tailoring the Electronic Properties of Chemically Reactive 2D Materials**
M. C. Hersam, Evanston/US

| | Hörsaal 2 | Hörsaal 5 | |
|---|---|---|---|
| | **Main Topic: Nanoparticles** | **Main Topic: Materials for Energy, (Photo-) Catalysis** | |
| | *K. Boldt* | *M. Wächtler* | |
| 02:20 p.m. | **Triggering the catalytic activity of $SrTiO_3$-based ceramics by electric-field-induced charge carrier confinement**<br>S. Mascotto, Hamburg/DE, B. Kayaalp, K. Klauke, Hamburg/DE, M. Biesuz, A. Iannaci, V.M. Sglavo, Trento/IT, M. D'Arienzo, Milan/IT, S. Lee, W. C. Jung, Daejeon/KR | **Carbozymes: Active-Site Imprinted N-Doped Carbons Inspired by Nature**<br>T.-P. Fellinger, München/DE, D. Menga, B. Koyutürk, München/DE, A. Mehmood, London/UK, J. Pampel, Dresden/DE, U. Petek, M. Gaberscek, Ljubljana/SI, H. A. Gasteiger, München/DE | 02:20 p.m. |
| 02:40 p.m. | **Correlation of structural and electronic properties of coupled lead sulfide nanocrystal superlattices**<br>A. Maier, Tübingen/DE, N. Previdi, F. Laible, M. Fleischer, F. Schreiber, Tübingen/DE, I. Vartaniants, Hamburg/DE, M. Scheele,Tübingen/DE | **$CO_2$ splitting on ceria at 300 ≤ T ≤ 800 °C: Non-equilibrium surface exchange and bulk diffusion of oxygen utilizing $C^{18}O_2$**<br>D. Uxa, Clausthal-Zellerfeld/DE, L. Dörrer, M. Schulz, P. Fielitz, G. Borchardt, Clausthal-Zellerfeld/DE, S. Beschnitt, Aachen/DE, N. Knoblauch, M. Schmücker, Köln/DE | 02:40 p.m. |
| 03:00 p.m. | **"Green" Synthesis of ZnTe/ZnS Giant-Shell Nanoparticles**<br>C. Castillo Delgadillo, Hamburg/DE, T. Jochum, H. Weller, Hamburg/DE | **The Liquid Structure and Dynamics of $CO_2$ Sequestration in Aqueous Alkanolamine Solutions**<br>M. Stein, Magdeburg/DE, S. M. Melnikov, Magdeburg/DE | 03:00 p.m. |
| 03:20 p.m. | **Cu-In-Se-based colloidal quantum dots via partial cation exchange: reaching NIR fluorescence**<br>J. F.L. Lox, Dresden/DE, Z. Dang, Genova/IT, V. Dzhagan, D. R.T. Zahn, Chemnitz/DE, V. Lesnyak, Dresden/DE | **Multi heteroatom doped carbon catalysts for the oxygen evolution reaction: The role of metal and hydroxide species**<br>U.I. Kramm, Darmstadt/DE, A. Shahraei, N. Weidler, M. Kuebler, K. A. Creutz, B. Kaiser, W. Jaegermann, Darmstadt/DE | 03:20 p.m. |
| 03:40 p.m. | **Atomistic insight into hydration shells by high-energy X-rays**<br>M. Zobel, Bayreuth/DE, S. L. J. Thomä, M. Eckardt, Bayreuth/DE, T. Petit, Berlin/DE | **Gas-Phase Investigations of $[Mo_3S_1]_2^-$ and $[Mo_2S_{12}]_2^-$ as Promising Hydrogen Evolution Reaction Catalysts**<br>A. Baloglou, Innsbruck/AT, M. Ončák, IS. Jageregger, M. Plattner, IC. van der Linde, M. K. Beyer, Innsbruck/AT | 03:40 p.m. |
| 04:00 p.m. | COFFEE BREAK | | 04:00 p.m. |

| | Hörsaal 2 | Hörsaal 5 | |
|---|---|---|---|
| | **Main Topic: Surfaces and Interfaces** | **Main Topic: Materials for Energy, Light Harvesting** | |
| | *D. Zámbó* | *S. Tschierlei* | |
| 04:20 p.m. | **Carbon-Based Functional Nanomaterials in 2D Confinement: On-Surface Synthesis, Aromaticity, and Molecular Topology**<br>J. M. Gottfried, Marburg/DE, Q. T. Fan, C. K. Krug, J. N. Luy, R. Tonner, Marburg/DE, D. Ebeling, A. Schirmeisen, Gießen/DE, W. Hieringer, Erlangen/DE | **The influence of the electrolyte composition on the stability of inactive components of supercapacitors**<br>A. Balducci, Jena/DE, C. Schütter, J. Krummacher, Jena/DE | 04:20 p.m. |
| 04:40 p.m. | **Conductance Photoswitching of Metal-Organic Frameworks with Embedded Spiropyran**<br>L. Heinke, Karlsruhe/DE | **Time-resolved spectroscopy on hetero-bimetallic catalysts**<br>T. K. Choi, Schenefeld/DE, M. Bauer, Paderborn/DE, M. Nazari, Bern/CH, A. Cannizzo, Bern/CH, W. Gawelda, Schenefeld/DE, C-. Bressler, Schenefeld/DE | 04:40 p.m. |
| 05:00 p.m. | **Shapes (of) matter**<br>M. Springborg, Saarbrücken/DE | **First principle calculations of efficient charge and energy transport in porphyrin-containing metal-organic frameworks**<br>M. Kozlowska, Eggenstein-Leopoldshafen/DE, X. Liu, M. Adams, I. Howard, L. Heinke, C. Wöll, W. Wenzel, Eggenstein-Leopoldshafen/DE | 05:00 p.m. |
| 05:20 p.m. | **Active and Passive Contribution of Atomic Defects towards the Reactivity of $NH_3$ at Platinum Surfaces**<br>D. Borodin, Göttingen/DE, B. G. Park, J. Fingerhut, A. M. Wodtke, T. N. Kitsopoulos, Göttingen/DE | **A new light-harvesting material for efficient collection of solar energy**<br>P. J. Walla, Braunschweig/DE | 05:20 p.m. |
| 05:40 p.m. | **Restricting Solvation to Two Dimensions: Soft-landing Microsolvated Ions on Inert Surfaces**<br>J. Daru, Bochum/DE, P. K. Gupta, D. Marx, Bochum/DE | **Model catalytic studies of liquid organic hydrogen carriers: Indole/Indoline/Octahydroindole on Ni(111)**<br>J. Steinhauer, Erlangen/DE, P. Bachmann, U. Bauer, F. Düll, F. Späth, H.P. Steinrück, C. Papp, Erlangen/DE | 05:40 p.m. |

### Galerie

06:00 p.m. — **POSTER SESSION (even numbers)** — 06:00 p.m.

Break from 07:25 – 07:35 p.m. to switch posters

07:35 p.m. — **POSTER SESSION (odd numbers)** — 07:35 p.m.

09:00 p.m. — **yPC Networking Evening** — 09:00 p.m.

## Friday, 31 May 2019 — Afternoon

### Hörsaal 2

*Chair: A. Turchanin*

01:25 p.m. — 1:25 p.m.

**PLENARY LECTURE**
**Controlling and Tailoring the Electronic Properties of Chemically Reactive 2D Materials**
M. C. Hersam, Evanston/US

| | Hörsaal 4 | Rosensäle Kleiner Saal | |
|---|---|---|---|
| | **Main Topic:** Materials for Life Science: Sensors | **Catalysis and Electrochemistry** | |
| | *F. Schacher* | *T. Bernhardt* | |
| 02:20 p.m. | **INVITED LECTURE**<br>**Single Molecule Detection of Markers With a Label-Free Bio-Electronic Sensor**<br>L. Torsi, Bari/IT | **ChemiTEM – an easy to use TEM with optimized workflows for chemistry and material synthesis applications**<br>W. Hetaba, Berlin/DE, R. Imlau, S. Kujawa, Eindhoven/NL, R. Schlögl, T. Lunkenbein, Berlin/DE | 02:20 p.m. |
| 02:40 p.m. | | **Core-shell microgels as carriers for metal nanoparticles**<br>V. Sabadasch, Bielefeld/DE, T. Brändel, Y. Hannappel, T. Hellweg, Bielefeld/DE | 02:40 p.m. |
| 03:00 p.m. | **Ultrasensitive detection of chemokines with graphene-based field effect devices**<br>D. Kaiser, Jena/DE, N. Meyerbroeker, Bielefeld/DE, W. Purschke, A. Vater, Berlin/DE, C. Neumann, A. Winter, Z. Tang, A. Turchanin, Jena/DE, T. Weimann, Braunschweig/DE, A: Schnieders, Bielefeld/DE | **Multicompound Nanoparticle Gelnetworks for Photocatalysis**<br>M. Rosebrock, Hanover/DE, P. Rusch, A. Schlosser, N.-C. Bigall, Hanover/DE | 03:00 p.m. |
| 03:20 p.m. | **Nano² - Nanotube-nanobody conjugates for near-infrared immunolabeling and sensing**<br>F. A. Mann, Göttingen/DE, N. Herrmann, S. Kruss, Göttingen/DE | **Plasmon/Light-induced Reduction of 4-Nitrothiophenol to 4-Aminothiophenol via Photorecycling on Silver Nanoparticles in the Presence of Halides: A Joint SERS and MS Approach**<br>S. Schlücker, Essen/DE, R. Grzeschik, A. Letzel, F. Uteschil, S. Barcikowski, O. Schmitz, Essen/DE | 03:20 p.m. |
| 03:40 p.m. | **Designing smart biosensors based on electro-responsive selfassembled monolayers from coiled-coil peptides**<br>M. Rabe, Düsseldorf/DE, L. M. Baumgartner, Düsseldorf/DE, A. Boyle, Leiden/NL, A. Erbe, Trondheim/NO | **Effect of Plasmonic Aluminum Nanoparticles on Titania Photocatalytic Performance**<br>T. Strunskus, Kiel/DE, M. Z. Ghori, S. Veziroglu, A. Hinz, B. B. Shurtleff, O. Polonskyi, Kiel/DE, D. J. Adam, Sonderborg/DK, F. Faupel, O. C. Aktas, Kiel/DE | 03:40 p.m. |
| 04:00 p.m. | COFFEE BREAK | | 04:00 p.m. |
| | **Hörsaal 4** | **Rosensäle Kleiner Saal** | |
| | **Main Topic:** Materials for Life Science, Sensors and Manipulation | **Catalysis and Electrochemistry** | |
| | *B. Simmchen* | *W. Kautek* | |
| 04:20 p.m. | **The sacrificial inactivation of the blue-light photosensor cryptochrome from *Drosophila melanogaster***<br>R. J. Kutta,Regensburg/DE, N. Archipowa, N. S. Scrutton, Manchester/UK | **Plasmonic Photocatalysis at the Single Particle Level**<br>E. Cortés, München/DE | 04:20 p.m. |
| 04:40 p.m. | **Bottom-up Fabrication of Optical Sensors Based on Periodic Hole Arrays in Metallic Films**<br>C. Pacholski, Potsdam/DE, M. Weiler, S. B. Quint, S. Klenk, Stuttgart/DE | **Utilizing plasmonic hot electrons for bridging top-down and bottom-up nanofabrication and for sub-wavelength absorption imaging**<br>S. A. Maier, München/DE, E. Cortés, S. Simoncelli, Y. Li, München/DE | 04:40 p.m. |
| 05:00 p.m. | **SERS-based monitoring of drugs and metabolites in complex biological matrices**<br>D. Cialla-May, Jena/DE, Karina Weber, Jürgen Popp, Jena/DE | **Mesoporous N-doped Carbon as Stable Pt Catalyst Support for the Oxygen Reduction Reaction**<br>J. Melke, Freiburg/DE, R. Schuster, M. Soballa, Freiburg/DE, T. Jurzinsky, Pfinztal/DE, S. Küspert, P. Elsässer, A. Fischer, Freiburg/DE | 05:00 p.m. |
| 05:20 p.m. | **Microfluidics: A Tool to Control the Degree of Polydispersity**<br>C. Stubenrauch, Stuttgart/DE, S. Andrieux, Stuttgart/DE, W. Drenckhan, Straßburg/FR | **INVITED LECTURE**<br>**Vibronic and chemical properties of supported single metal atom catalysts***<br>E. Vesselli, Trieste/IT | 05:20 p.m. |
| 05:40 p.m. | **SMALPs for smFRET of membrane proteins in an ABELtrap**<br>M. Börsch, Jena/DE, M. Dienerowitz, A. Dathe, T. Heitkamp, Jena/DE | | 05:40 p.m. |
| | **Galerie** | | |
| 06:00 p.m. | **POSTER SESSION (even numbers)** | | 06:00 p.m. |
| | Break from 07:25 – 07:35 p.m. to switch posters | | |
| 07:35 p.m. | **POSTER SESSION (odd numbers)** | | 07:35 p.m. |
| 09:00 p.m. | **yPC Networking Evening** | | 09:00 p.m. |

Presentations invited by EuChemS are marked with an *

## Friday, 31 May 2019 — Afternoon

### Hörsaal 2

*Chair: A. Turchanin*

01:25 p.m.

**PLENARY LECTURE**
**Controlling and Tailoring the Electronic Properties of Chemically Reactive 2D Materials**
M. C. Hersam, Evanston/US

01:25 p.m.

| | Rosensäle Große Saal | Hörsaal 7 | |
|---|---|---|---|
| | **Spectroscopy** | **Reaction Kinetics & Dynamics** | |
| | *C. Reichardt* | *R. Kutta* | |
| 02:20 p.m. | **Probing Colocalization of N-Ras and K-Ras4B Lipoproteins in Model Biomembranes**<br>L. Li, Dortmund/DE, R. Winter, M. Dwivedi, D. Patra, N. Erwin, S. Möbitz, Dortmund/DE | **Distinction of ortho-, meta- and para-benzene derivatives by means of chirped femtosecond laser ionization**<br>V. Schäfer, Marburg/DE, K. - M. Weitzel, Marburg/DE | 02:20 p.m. |
| 02:40 p.m. | **Photochemical Degradation of a Conjugated Imine-Polymer**<br>M. Micheel, Jena/DE, J. Ahner, M. D. Hager, B. Dietzek, Jena/DE | **Investigating the interaction of polycyclic aromatic hydrocarbons with energy-rich radiation**<br>P. Chopra, Hamburg/DE, S. Gruet, Lille/FR, A. L. Steber, S. Zinn, R. Boll, S. Dörner, S. Bari, B. Erk, L. He, M. M. Kazemi, D. Rompotis, X. Cheng, N. Schirmel, J. Wiese, M. Johny, J. Küpper, M. Schnell, D. Loru, C. Passow, D. Ramm, T. Mullins, B. Manschwetus, Hamburg/DE, H. Köckert, J. W. L. Lee, F. Allum, R. Mason, D. Heathcote, M. Burt, M. Brouard, C. Vallance, Oxford/UK, J. Peschel, J. Lahl, S. Maclot, P. Johnsson, Lund/SE, A. Lemmens, S. Trippel, A. Rijs, Nijmegen/NL, P. Olshin, Saint Petersburg/RU, F. Ziaee, D. Rolles, Manhattan/US, | 02:40 p.m. |
| 03:00 p.m. | **Towards capturing cellular complexity: Computational Spectroscopy of Reverse Micelles**<br>P. Honegger, Vienna/AT, M. Schmollngruber, O. Steinhauser, Vienna/AT | **Maximum Entropy Reconstruction of Velocity Maps**<br>B. Dick, Regensburg/DE | 03:00 p.m. |
| 03:20 p.m. | **Characterization of Tannin-Furanic Foams by Raman Spectroscopy, Infrared Spectroscopy, and by X-ray Computed Microtomography**<br>M. Musso, Salzburg/AT, A. Reyer, G. R. Bourret, Salzburg/AT | **Indirect dynamics dominate base induced elimination (E2) for reactions of fluorine anions with tert-butyl halides**<br>J. Meyer, Innsbruck/AT, E. Carrascosa, T. Michaelsen, B. Bastian, M. Stei, F. Krammer, L.-M. Retter, R. Wester, Innsbruck/AT | 03:20 p.m. |
| 03:40 p.m. | **Classification of different pollen samples using difference spectra**<br>F. Korinth, Jena/DE, C. Stiebing, C. Krafft, J. Popp, Jena/DE | **There is no reason to describe nuclear motion quantum mechanically**<br>I. Frank, Hannover/DE | 03:40 p.m. |
| 04:00 p.m. | COFFEE BREAK | | 04:00 p.m. |
| | **Rosensäle Großer Saal** | **Hörsaal 7** | |
| | **Spectroscopy** | **Photoinduced Kinetics & Dynamics** | |
| | *M. Micheel* | *B. Dick* | |
| 04:20 p.m. | **INVITED LECTURE**<br>**Ultrafast X-ray scattering of chemical reactions***<br>S. Westenhoff, Gothenburg/SE | **Elucidating the photophysics of organic radicals by simulation of nonadiabatic dynamics and time-resolved spectroscopy**<br>J. Petersen, Würzburg/DE, K. Issler, A. Humeniuk, R. Mitrić, Würzburg/DE | 04:20 p.m. |
| 04:40 p.m. | | **Photophysics of DNA-intercalated ruthenium dyes**<br>C. Reichardt, Jena/DE, M. Wächtler, Jena/DE, S. A. McFarland, Greensboro/US, B. Dietzek, Jena/DE | 04:40 p.m. |
| 05:00 p.m. | **Spin-control of the binding mode of $CO_2$ to a transition metal**<br>S. Straub, Bonn/DE, J. Lindner, P. Vöhringer, Bonn/DE | **Spin-Chemistry in Donor-Acceptor Dyads and Triads with Perylene Diimide Acceptors: Investigation of the Magnetic Field Effect**<br>D. Mims, Würzburg/DE, U. E. Steiner, Konstanz/DE, C. Lambert, Würzburg/DE | 05:00 p.m. |
| 05:20 p.m. | **Metalloid $Ge_9$ and $Ge_{18}$-cluster dynamics: Electron injection into the solvent versus electron recombination**<br>N. C. Michenfelder, Karlsruhe/DE, C. Gienger, A. Schnepf, Tübingen/DE, A. –N. Unterreiner, Karlsruhe/DE | **Time Resolved Photoemission Study of the Charge Transfer Dynamics in Anatase $TiO_2$(101) for CO Photooxidation to $CO_2$**<br>H. Noei, Hamburg/DE, M. Wagstaffe, S. Chung, L. Wenthaus, G. Semione, S. Palutke, G. Mercurio, S. Dziarzhytski, H. Redlin, N. Klemke, Y. Yang, A. – L. Calendron, F. Kärtner, W. Wurth, A. Stierle, Hamburg/DE | 05:20 p.m. |
| 05:40 p.m. | **Tunable Supercontinuum Generation within Higher-Order Modes in Liquid-Core Optical Fibers**<br>R. Scheibinger, Jena/DE, M. Chemnitz, K. Schaarschmidt, M. A. Schmidt, Jena/DE | **Photoinduced reactions of Anthraquinone-2-sulfonate towards aerosol constituents in tropospheric aqueous solution**<br>T. Schaefer, Leipzig/DE, H. Herrmann, Leipzig/DE | 05:40 p.m. |
| | **Galerie** | | |
| 06:00 p.m. | **POSTER SESSION (even numbers)** | | 06:00 p.m. |
| | Break from 07:25 – 07:35 p.m. to switch posters | | |
| 07:35 p.m. | **POSTER SESSION (odd numbers)** | | 07:35 p.m. |
| 09:00 p.m. | **yPC Networking Evening** | | 09:00 p.m. |



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## Friday, 31 May 2019 — Afternoon

**Hörsaal 2**

*Chair: A. Turchanin*

01:25 p.m. — **PLENARY LECTURE**
**Controlling and Tailoring the Electronic Properties of Chemically Reactive 2D Materials**
M. C. Hersam, Evanston/US

**Hörsaal 8**

**Transport and Storage**

*L. Medenbach*

02:20 p.m. — **6Li-tracer diffusion in dense $LiMn_2O_4$ pellets by means of isotope exchange and ToF-SIMS analysis**
C. Schwab, Aachen/DE, M. Martin, Aachen/DE

02:40 p.m. — **Low-energy electron attachment induced transport – conductivities and the role of blocking electrodes**
M. Schäfer, Marburg/DE, A. Hein, K. – M. Weitzel, Marburg/DE

03:00 p.m. — **Molecular Dynamics Simulations of Cation Transport in Hafnia**
A. Bonkowski, Aachen/DE, M. P. Mueller, R. A. De Souza, Aachen/DE

03:20 p.m. — **Chemical pollutant diffusion in polymers**
S. Kern, Gießen/DE, S. Knuplez, S. Drahorad, R. - A. Düring, J. Janek, M. Rohnke, Gießen/DE

03:40 p.m. — **An attenuation model for mass transport limitations in chemical relaxation experiments**
A. Usler, Aachen/DE, A. Falkenstein, M. Martin, Aachen/DE

04:00 p.m. — COFFEE BREAK

**Hörsaal 8**

**Spectroscopy**

*O. Diwald*

04:20 p.m. — **Spectral Properties of the Hydrated Electron Investigated in Cluster Models of $(H_2O)_n^-$ and $[Mg(H_2O)n]^+$, n = 1–200**
M. Ončák, Innsbruck/AT, A. Herburger, T. Taxer, N. K. Bersenkowitsch, E. Barwa, C. van der Linde, M. K. Beyer, Innsbruck/AT

04:40 p.m. — **He-tagging gas-phase optical spectroscopy of astronomically relevant species**
D.V. Strelnikov,Karlsruhe/DE, J. Jašík, Prague/CZ, D. Gerlich, Chemnitz/DE, J. Roithová, Nijmegen/NL

05:00 p.m. — **NEXAFS Spectroscopy of the Benzene Cation in an Ion Trap**
V. Zamudio-Bayer, Berlin/DE, M. Timm, C. Bülow, Berlin/DE, R. Lindblad, Lund/SE, B. von Issendorff, Freiburg/DE, T. Lau, Berlin/DE

05:20 p.m. — **Stability and Local Environment of Transition Metal Ions in Vapor Phase Grown MgO Nanocrystals**
M. Niedermaier, Salzburg/AT, T. Schwab, Salzburg/AT, P. Dolcet, Padova/IT, J. Bernardi, Wien/AT, S. Gross, Padova/IT, O. Diwald, Salzburg/AT

05:40 p.m. — **IR-spectra of particulate matter beyond Mie-theory**
S. Höfer, Jena/DE, H. Mutschke, J. Popp, T. G. Mayerhöfer, Jena/DE

**Galerie**

06:00 p.m. — **POSTER SESSION (even numbers)**

Break from 07:25 – 07:35 p.m. to switch posters

07:35 p.m. — **POSTER SESSION (odd numbers)**

09:00 p.m. — **yPC Networking Evening**

## Saturday, 1 June 2019 — Morning

| | Hörsaal 2 | |
|---|---|---|
| | *Chair: J. Popp* | |
| 08:30 a.m. | **PLENARY LECTURE**<br>**Engineered Living Materials**<br>A. del Campo Bécares, Saarbrücken/DE | 08:30 a.m. |

| | Hörsaal 4 | Hörsaal 5 | |
|---|---|---|---|
| | **Main Topic:**<br>Materials for Life Science, Photoresponsive Materials | **Main Topic:**<br>Materials for Energy Storage | |
| | *M. Rohnke* | *A. Balducci* | |
| 09:25 a.m. | **Evaluation of the Resonance Energy Transfer between $Tm^{3+}$- doped Frequency Upconverting Nanoparticles (UCNP) and Organic Dyes**<br>A. López de Guereñu, Potsdam-Golm/DE, L. John, P. Wessig, M. U. Kumke, Potsdam-Golm/DE | **Sodium-ion batteries: Energy storage with abundant elements**<br>P. Adelhelm, Jena/DE | 09:25 a.m. |
| 09:45 a.m. | **Tailored upconversion nanocrystals optimized for high quantum yield or efficient energy transfer**<br>C. Homann, Osnabrück/DE, L. Krukewitt, F. Frenzel, B. Grauel, C. Würth, U. Resch-Genger, Berlin/DE, C. Drees, A. N. Raj, R. Kurre, J. Piehler, M. Haase, Osnabrück/DE, K. Busch, Münster/DE | **Using Advanced Characterization Techniques for Next Generation Li Ion Battery Interfaces and Interphases**<br>F. U. Renner, Hasselt/BE, B. Moeremans, Y. Zheng, Hasselt/BE, H. W. Cheng, M. Valtiner, Wien/AT | 09:45 a.m. |
| 10:05 a.m. | **NIR Laser Heating of $NaYF_4$:Yb, Er Particles without and with NIR-to-VIS Frequency Up-Conversion**<br>H. Stafast, Jena/DE, F. Garwe, S. H. Heinemann, R. Heintzmann, W. Paa, P. Rühl, JD. Wang, Jena/DE | **A Neural Network Potential for Lithium Manganese Oxides**<br>M. Eckhoff, Göttingen/DE, P. E. Blöchl, Clausthal/DE, J. Behler, Göttingen/DE | 10:05 a.m. |
| 10:25 a.m. | **Magnetoplasmonic Janus-Nanoparticles for Targeted Synergistic Cancer Therapies**<br>C. Kryschi, Erlangen/DE, S. Klein, C. Harreis, C. Menten, M. Smuda, Erlangen/DE | **Self-diffusion barriers: Possible descriptors for dendrite growth in batteries?**<br>A. Groß, Ulm/DE | 10:25 a.m. |
| 10:45 a.m. | COFFEE BREAK | | 10:45 a.m. |

| | Hörsaal 4 | Hörsaal 5 | |
|---|---|---|---|
| | **Main Topic:**<br>Materials for Life Science, Protein/Cell Interactions | **Main Topic:**<br>Materials for Energy Storage | |
| | *M. Scheele* | *P. Adelhelm* | |
| 11:05 a.m. | **Electrostatic Interactions in Crowded Protein Solutions: Impact for the Development of Therapeutic Drugs**<br>P. Garidel, Biberach (Riss)/DE, J. Hartl, L. Kurz, M. Blech, Biberach (Riss)/DE, D. Hinderberger, Halle (Saale)/DE | **Characterization of battery material interfaces by time-of-flight secondary ion mass spectrometry**<br>F. Walther, Gießen/DE, R. Koerver, T. Fuchs, S. Ohno, J. Sann, M. Rohnke, W. G. Zeier, J. Janek, Gießen/DE | 11:05 a.m. |
| 11:25 a.m. | **Protein Ligand Binding: what happens in the hydration layer?**<br>S. Wiegand, Jülich/DE, D. Niether, Jülich/DE, M. Sarter, Aachen/DE, B. König, A. Stadler, M. Zamponi, Jülich/DE, J. Fitter, Aachen/DE | **Utilizing ionic liquids for redox flow batteries**<br>R. Chen, Saarbrücken/DE, Z. Huang, Y. Zhang, R. Hempelmann, Saarbrücken/DE | 11:25 a.m. |
| 11:45 a.m. | **Influence of Viscoelastic Properties of Polymer Modified Surfaces on the Protein Adsorption. A QCM-D Study**<br>A. Rudt, Reutlingen/DE, P. Moosmann, X. Xiong, H. Hartmann, R. Krastev, Reutlingen/DE, C. Syldatk, Karlsruhe/DE | **The influence of the electrolyte composition on the electrochemical behaviour of organic radical polymers**<br>P. Gerlach, Jena/DE, R. Burges, A. Lex-Balducci, U. S. Schubert, A. Balducci, Jena/DE | 11:45 a.m. |
| 12:05 p.m. | **Controlling nanomaterial interfaces for biological applications**<br>J. - F. Berret, Paris/FR | **NMR Investigations on Ionic-Liquid-based Gel Polymer Electrolytes**<br>C. Schmidt, Paderborn/DE, W. Keil, Paderborn/DE, M. K. Vyas, S. Khurana, A. Chandra, Delhi/IN | 12:05 p.m. |
| 12:25 p.m. | LUNCH BREAK | | 12:25 p.m. |

## Saturday, 1 June 2019 — Morning

| | Hörsaal 2 | |
|---|---|---|
| | *Chair: J. Popp* | |
| 08:30 a.m. | **PLENARY LECTURE**<br>**Engineered Living Materials**<br>A. del Campo Bécares, Saarbrücken/DE | 08:30 a.m. |

| | Seminarraum 114 | Hörsaal 2 | |
|---|---|---|---|
| | **Main Topic:**<br>Nanomaterials and Catalysis | **Award Winners** | |
| | *U. I. Kramm* | *J. Janek* | |
| 09:25 a.m. | **Investigation of the synthesis of suspensions of amorphous titania nanoparticles using inline PDW spectroscopy**<br>S. Pfuhl, Potsdam/DE, O. Reich, L. Bressel, Potsdam/DE | **van't-Hoff Award**<br>**Mischa Bonn** | 09:25 a.m. |
| 09:45 a.m. | **$CO_2$ capture by metal-doped $Fe_3O_4$ surfaces: A theoretical study**<br>X. Li, Berlin/DE, J. Paier, Berlin/DE | **Ewald Wicke Award**<br>**Fabian Holzmeier** | 09:45 a.m. |
| 10:05 a.m. | **Embedded vanadia as a new class of oxide catalysts: Synthesis and operando spectroscopic analysis during partial oxidation**<br>C. Hess, Darmstadt/DE, P. Ruff, L. Schumacher, Darmstadt/DE | **Nernst-Haber-Bodenstein Award**<br>**Marcus Scheele** | 10:05 a.m. |
| 10:25 a.m. | **The effect of surface orientation on the oxygen surface exchange coefficient of ceria thin films**<br>S. P. Waldow, Aachen/DE, B. J. Statham, Aachen/DE, H. Wardenga, A. Klein, Darmstadt/DE, R. A. De Souza, Aachen/DE | **DFG – German Research Foundation (Presentation)**<br>**W. Wachter** | 10:25 a.m. |
| 10:45 a.m. | COFFEE BREAK | | 10:45 a.m. |

| | Seminarraum 114 | Hörsaal 2 | |
|---|---|---|---|
| | **Main Topic:**<br>2D Materials and Thin films | **Main Topic:**<br>Nanomaterials and Devices | |
| | *F. Gießelmann* | *K. Al-Shamery* | |
| 11:05 a.m. | **Marangoni flow in freely suspended liquid films**<br>R. Stannarius, Magdeburg/DE, T. Trittel, K. Harth, C. Llopp, Magdeburg/DE | **Two-Dimensional Nanosheets and Ultrathin Nanoplatelets – High Mobility vs. Photoluminescence Properties**<br>J. Lauth, Hannover/DE, F. Manteiga Vázquez, Q. Yu, Delft/NL, J. Neil, Oldenburg/DE, R. W. Crisp, M. Failla, Delft/NL, E. Klein, Hamburg/DE, C. Klinke, Swansea/GB, S. Kinge, Zaventem/BE, L. D. A. Siebbeles, Delft/NL | 11:05 a.m. |
| 11:25 a.m. | **Electrodeposition of nanocrystalline Fe-P coatings**<br>W. Kautek, Wien/AT, W. Hansal, Hirtenberg/AT, N. Kovalska, M. Pfaffeneder-Kmen, Wien/AT, N. Tintaru, R. Mann, Hirtenberg/AT, N. Tsyntsaru, H. Cesiulis, Vilnius/LT, A. Gebert, Dresden/DE, J. Fornell, E. Pellicer, J. Sort, Bellaterra/ES | **The Interactions of Clean and Defective Anatase Nanotubes with Water and Their Suitability for Photoelevtrochemical Water Splitting. Ab init MD Studies**<br>S. Kenmoe, Essen/DE, O. Lisovski, E. Spohr, Essen/DE | 11:25 a.m. |
| 11:45 a.m. | **Oxidized Coronene films as a reliable source of tailored graphene oxides (nano-GOs)**<br>A. Böttcher, Karlsruhe/DE, J. Weippert, V. Gewiese, S. Ulas, D. Strelnikov, M. M. Kappes, Karlsruhe/DE | **Optimized $CuBi_2O_4$ photoelectrodes based on design of interface energetics**<br>J. P. Hofmann, Eindhoven/NL, F. E. Oropeza, A. Pons, E. J. M. Hensen, Eindhoven/NL, K. H. L. Zhang, Xiamen/CN | 11:45 a.m. |
| 12:05 p.m. | **Characterisation, Coverage, and Orientation of Functionalised Graphene using Sum-Frequency Generation Spectroscopy**<br>S. P. K. Koehler, Manchester/GB, H. AlSalem, Manchester/GB | **Versatile Applications of Sulfonated Mesoporous Silica Materials- Focusing on Material Development and Biosensing**<br>J. Timm, Bayreuth/DE, M. Weiss, R. Marschall, Bayreuth/DE, A. K. Pandey, S. D. Yambem, Brisbane/AU | 12:05 p.m. |
| 12:25 p.m. | LUNCH BREAK | | 12:25 p.m. |

## Saturday, 1 June 2019 — Morning

| | Hörsaal 2 | |
|---|---|---|
| | *Chair: J. Popp* | |
| 08:30 a.m. | **PLENARY LECTURE**<br>**Engineered Living Materials**<br>A. del Campo Bécares, Saarbrücken/DE | 08:30 a.m. |

| | Hörsaal 7 | Hörsaal 8 | |
|---|---|---|---|
| | **Spectroscopy** | **Biophysical Chemistry and Biophotonics** | |
| | *E. Rühl* | *T. Kottke* | |
| 09:25 a.m. | **INVITED LECTURE**<br>**Weighing single molecules with light***<br>P. Kukura, Oxford/GB | **Cultivation-free identification of pathogens via Raman microscopy**<br>P. Rösch, Jena/DE, C. Wichmann, B. Lorenz, G. Azemtsop, H. Shen, A. Nakar, J. Popp, Jena/DE | 09:25 a.m. |
| 09:45 a.m. | | **FTIR and cavity-enhanced Raman spectroscopy for in situ, real time monitoring of gases in the biosciences**<br>G. Metcalfe, Sheffield/GB, M. Hippler, Sheffield/GB | 09:45 a.m. |
| 10:05 a.m. | **Selective Optical Saturation Spectroscopy for Two-Species-One-Wavelength Detection of Trace Gases**<br>G. Friedrichs, Kiel/DE, I. Sadiek, Umea/SE | **Localized surface plasmon resonance (LSPR) on metal nanoparticles for bioanalytical applications**<br>W. Fritzsche, Jena/DE, D. Zopf, T. Schneider, S. Kastner, A. Pittner, C. Reuter, M. Thiele, L. Stolle, A. Dathe, O. Stranik, A. Csaki, Jena/DE | 10:05 a.m. |
| 10:25 a.m. | **Photochemical properties of photosensitizers in tropospheric aqueous solution**<br>T. Felber, Leipzig/DE, T. Schaefer, H. Herrmann, Leipzig/DE | **Raman spectroscopic analysis of microbial gas exchange processes**<br>T. Frosch, Jena/DE, A. Sieburg, T. Jochum, J. Popp, Jena/DE | 10:25 a.m. |
| 10:45 a.m. | COFFEE BREAK | | 10:45 a.m. |

| | Hörsaal 7 | Hörsaal 8 | |
|---|---|---|---|
| | **Spectroscopy** | **Biophysical Chemistry and Biophotonics** | |
| | *S. Schlücker* | *R. Heintzmann* | |
| 11:05 a.m. | **Individual tuning of solvent parameters – From organic solvents to ionic liquids**<br>S. Landgraf, Graz/AT | **INVITED LECTURE**<br>**Super-resolution microscopy by *d*STORM: From concepts to biomedical applications**<br>M. Sauer, Würzburg/DE | 11:05 a.m. |
| 11:25 a.m. | **Raman spectroscopy and atomic resolution in ambient conditions**<br>V. Deckert, Jena/DE, S. Trautmann, S. Kupfer, S. Gräfe, Jena/DE | | 11:25 a.m. |
| 11:45 a.m. | **INVITED LECTURE**<br>**Raman and SERS Spectroscopy for Bioanalysis**<br>D. Graham, Glasgow/UK | **Molecular membrane organization – a super-resolution fluorescence spectroscopy study**<br>C. Eggeling, Jena/DE, E. Sezgin, Oxford/DE, P. Kellner, F. Reina, Jena/DE | 11:45 a.m. |
| 12:05 p.m. | | **Studying the Structural Response of Photoreceptors in Living Cells by In-Cell Infrared Spectroscopy**<br>L. Goett-Zink, Bielefeld/DE, J. L. Klocke, L. Boegeholz, T. Kottke, Bielefeld/DE | 12:05 p.m. |
| 12:25 p.m. | LUNCH BREAK | | 12:25 p.m. |



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## Saturday, 1 June 2019 — Morning

| | |
|---|---|
| | **Hörsaal 2** |
| | *Chair: J. Popp* |
| 08:30 a.m. | PLENARY LECTURE<br>**Engineered Living Materials**<br>A. del Campo Bécares, Saarbrücken/DE |
| | **Seminarraum 113** |
| | **Theory and Data Science** |
| | *D. Mollenhauer* |
| 09:25 a.m. | **Machine learning for nanosecond excited-state dynamics**<br>P. Marquetand, Wien/AT, J. Westermayr, M. Menger, S. Mai, L. González, Wien/AT, M. Gastegger, Berlin/DE |
| 09:45 a.m. | **Photosensitizers: Coping with the Charge-Transfer States**<br>O. Kühn, Rostock/DE, O. Bokareva, S. Bokarev, Rostock/DE |
| 10:05 a.m. | **Hydrogen Bond Lifetimes in Ionic Liquids: A Molecular Dynamics Simulation Study**<br>J. Neumann, Rostock/DE, D. Paschek, R. Ludwig, Rostock/DE |
| 10:25 a.m. | **Modeling fast electron dynamics with real-time TDDFT**<br>C. Hühn, Jena/DE, M. Sierka, Jena/DE |
| 10:45 a.m. | COFFEE BREAK |
| | **Seminarraum 113** |
| | **Theory and Data Science** |
| | *P. Marquetand* |
| 11:05 a.m. | **Towards tailored wave-function approaches for anharmonic vibrational spectra of bio-molecular systems**<br>C. König, Kiel/DE |
| 11:25 a.m. | **The origin of unstable sodium graphite intercalation compounds**<br>D. Mollenhauer, Gießen/DE, O. Lenchuk, Gießen/DE |
| 11:45 a.m. | **Investigations on spectral standardization, spectral alignment and model transfer techniques**<br>T. Bocklitz, Jena/DE, S. Guo, M. Challani, P. Rösch, J. Popp, Jena/DE |
| 12:05 p.m. | **Sample size planning for spectroscopic data**<br>N. Ali, Jena/DE, J. Popp, T. Bocklitz, Jena/DE |
| 12:25 p.m. | LUNCH BREAK |

## Saturday, 1 June 2019 — Afternoon

| | Hörsaal 2 | |
|---|---|---|
| | *Chair: B. Dietzek* | |
| 01:25 p.m. | **PLENARY LECTURE**<br>**Atom-by-atom functionalisation of low-dimensional materials**<br>U. Kaiser, Ulm/DE | 01:25 p.m. |
| | **Hörsaal 4** | **Hörsaal 5** |
| | **Main Topic:**<br>Materials for Life Science, Drug Delivery, Responsive Materials | **Main Topic:**<br>Materials for Energy, Polymers and Porous Materials |
| | *T. Gutmann* | *C. Stubenrauch* |
| 02:20 p.m. | **Molecular control of mechanoresponsive coiled coil-based hydrogels**<br>K. G. Blank, Potsdam/DE, A. S. de Leon, Potsdam/DE, C. Huster, K. Kroy, Leipzig/DE, P. Lopez-Garcia, M. Goktas, I. Tunn, E. M. Grad, Potsdam/DE | **New Insights into Solvent Effects on the P3HT Thin Film Morphology via PEEM**<br>F. Niefind, Leipzig/DE, S. Karande, A. Kahnt, B. Abel, Leipzig/DE, S. Mannsfeld, Dresden/DE | 02:20 p.m. |
| 02:40 p.m. | **Drug release and transport from bone cements into bone**<br>M. R. Rohnke, Gießen/DE, C. Kern, B. Mogwitz, S. Ray, A. Henß, Gießen/DE | **Initiated chemical vapor deposition of functional polymer thin films with tailored properties**<br>T. Strunskus, Kiel/DE, S. Schröder, M. H. Burk, F. Ellermann, S. Rehders, C. Aktas, F. Faupel, Kiel/DE | 02:40 p.m. |
| 03:00 p.m. | **Polymeric Photoacids – Monomer Design, Photostability, and First Steps Towards Light-Mediated Release**<br>F. Schacher, Jena/DE | **Solution-Processed Organic Semiconductors and their Applications**<br>K. Meerholz, Köln/DE | 03:00 p.m. |
| 03:20 p.m. – 03:40 p.m. | **Controlled Formation of Multi-Layered Nanotubes Self-Assembled from Amino Acid Amphiphiles**<br>M. Gradzielski, Berlin/DE, K. Voigtländer, Berlin/DE, D. Danino, I. Abutbul-Ionita, Haifa/IL | **Nanomechanics and energy storage in porous materials: enhancing storage properties by tuned adsorption induced structural deformation**<br>M. Russina, Berlin/DE, M. - C. Schlegel, V. Grzimek, G. Günther, V. Svetogorov, Berlin /DE | 03:20 p.m. – 03:40 p.m. |
| | Hörsaal 2 | | |
| 03:55 p.m. | **Poster Awards and Closing Session** | | 03:55 p.m. |

## Saturday, 1 June 2019 — Afternoon

| | Hörsaal 2 | |
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| | *Chair: B. Dietzek* | |
| 01:25 p.m. | **PLENARY LECTURE**<br>**Atom-by-atom functionalisation of low-dimensional materials**<br>U. Kaiser, Ulm/DE | 01:25 p.m. |

| | Seminarraum 114 | Hörsaal 2 | |
|---|---|---|---|
| | **Main Topic:**<br>Nanomaterials, Advanced Techniques | **Main Topic:**<br>Polymer Materials | |
| | *V. Deckert* | *E. Vesselli* | |
| 02:20 p.m. | **Nanomaterials Synthesized in Helium Droplets**<br>W. E. Ernst, Graz/AT, A. W. Hauser, F. Lackner, D. Knez, F. Hofer, Graz/AT | **INVITED LECTURE**<br>**A colloidal approach towards mechano-sensitive plasmonic structures**<br>A. Fery, Dresden/DE | 02:20 p.m. |
| 02:40 p.m. | **Scanning helium microscopy: Imaging with atoms**<br>S. Schulze, Cambridge/GB, D. Ward, M. Bergin, S. Lambrick, J. Ellis, A. Jardine, Cambridge/GB | | 02:40 p.m. |
| 03:00 p.m. | **Porous polymers via emulsion templating: why do spherical droplets become hexagonal pores?**<br>L. Koch, Stuttgart/DE, W. Drenckhan, Strasbourg/FR, C. Stubenrauch, Stuttgart/DE | **Super-resolution fluorescence imaging of functional microgels**<br>D. Wöll, Aachen/DE, A. Oppermann, O. Nevskyi, E. Siemes, S. P. Centeno, A. Purohit, L. Hoppe Alvarez, W. Richtering, Aachen/DE | 03:00 p.m. |
| 03:20 p.m. – 03:40 p.m. | **Three-Dimensional Lithograph on Silicon Nanowire Arrays**<br>G. R. Bourret, Salzburg/AT, F. J. Wendisch, M. A. Saller, A. Eadie, A. Reyer, M. Musso, O. Diwald, Salzburg/AT, M. Rey, N. Vogel, Erlangen/DE | **Smart free-standing membranes by cross-linking of responsive copolymer microgels**<br>T. Hellweg, Bielefeld/DE, M. Dirksen, J. Bookhold, Bielefeld/DE | 03:20 p.m. – 03:40 p.m. |

| | Hörsaal 2 | |
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| 03:55 p.m. | **Poster Awards and Closing Session** | 03:55 p.m. |

## Saturday, 1 June 2019 — Afternoon

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| | **Hörsaal 2** | |
| | *Chair: B. Dietzek* | |
| 01:25 p.m. | **PLENARY LECTURE**<br>**Atom-by-atom functionalisation of low-dimensional materials**<br>U. Kaiser, Ulm/DE | 01:25 p.m. |
| | **Hörsaal 7** — **Spectroscopy** | **Hörsaal 8** — **Nuclear Magnetic Resonance (NMR)** |
| | *H. Stafast* | *K. - M. Weitzel* |
| 02:20 p.m. | **Elucidating how trace gases interact with ice surfaces**<br>J. D. Cyran, Mainz/DE, E. H. G. Backus, Wien/AT, M. J. van Zadel, M. Bonn, Mainz/DE | **P-31 NMR study of the mechanism of hydrolysis of bioactive phosphate glasses**<br>D. A. Avila Salazar, Jena/DE, P. Bellstedt, D. S. Brauer, Jena/DE | 02:20 p.m. |
| 02:40 p.m. | **Contrast enhancement mechanism in infrared near-field microscopy using graphene-substrates**<br>G. Ulrich, Berlin/DE, B. Kästner, A. Hoehl, A. Hornemann, P. Patoka, E. Rühl, G. Ulm, Berlin/DE, M. Johnson, Stockholm/SE, M. Kruskopf, K. Pierz, Braunschweig/DE | **NMR Deuteron Quadrupole Coupling Constants of Protic Ionic Liquids**<br>V. Overbeck, Rostock/DE, A. E. Khudozhitkov, Novosibirsk/RU, P. Stange, A. - M. Bonsa, A. Appelhagen, Rostock/DE, A. G. Stepanov, D. I. Kolokolov, Novosibirsk/RU, D. Paschek, R. Ludwig, Rostock/DE | 02:40 p.m. |
| 03:00 p.m. | **Finding the Right Switch: Photo-Control of Air-Water Interfaces and Foams with Arylazopyrazole Surfactants**<br>B. Braunschweig, Münster/DE, C. Honnigfort, D. Glikman, M. Schnurbus, Münster/DE | **Resolving complex core-shell nanoparticle architectures by surface enhanced dynamic nuclear polarization**<br>T. Gutmann, Darmstadt/DE, M. Gallei, Darmstadt/DE | 03:00 p.m. |
| 03:20 p.m. – 03:40 p.m. | **INVITED LECTURE**<br>**X-Ray Photoelectron Spectroscopy; a Chemical Tool for Electrochemical Analyses of Potential Developments at Liquid/Solid Interfaces***<br>S. Suzer, Ankara/TR | **New Solid-State NMR and EPR Strategies for the Structural Characterization of Photonic Glasses and Glass-Ceramics**<br>C. Doerenkamp, São Carlos/BR, G. Galleani, A. S. S. de Camargo, C. Magon, São Carlos/BR, H. Eckert, Münster/DE | 03:20 p.m. – 03:40 p.m. |
| | **Hörsaal 2** | |
| 03:55 p.m. | **Poster Awards and Closing Session** | 03:55 p.m. |



Presentations invited by EuChemS are marked with an *

## Saturday, 1 June 2019 Afternoon

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| | **Hörsaal 2** |
| | *Chair: B. Dietzek* |
| 01:25 p.m. | PLENARY LECTURE<br>**Atom-by-atom functionalisation of low-dimensional materials**<br>U. Kaiser, Ulm/DE |
| | **Seminarraum 113** |
| | **Thermodynamics** |
| | *A. Böttcher* |
| 02:20 p.m. | **Liquid-Liquid Phase Behavior of Mixtures of Alkanes with n-Alkyl Alcohols**<br>B. Rathke, Bremen/DE, W. Schröer, Bremen/DE |
| 02:40 p.m. | **Structure and Dynamics of a Confined Ionic Liquid Studied by an X-ray Surface Force Apparatus**<br>M. Mezger, Mainz/DE, H. Weiss, J. Mars, Mainz/DE, M. Valtiner, H. - W. Cheng, C. Merola, Wien/AT, V. Honkimäki, Grenoble/FR |
| 03:00 p.m. | **Probing different aspects of protein stability for the Pin1-WW domain: simulation vs. experiment**<br>D. Markthaler, Stuttgart/DE, M. Fleck, N. Hansen, Stuttgart/DE |
| 03:20 p.m. – 03:40 p.m. | **Functionalization of Intergranular Regions inside Alkaline Earth Oxide Nanoparticle derived Ceramics**<br>T. Schwab, Salzburg/AT, H. Razouq, M. Niedermaier, G. Zickler, G. Redhammer, O. Diwald, Salzburg/AT |
| | **Hörsaal 2** |
| 03:55 p.m. | **Poster Awards and Closing Session** |

## Main Topic: Materials for Energy Conversion and Storage

P 01.01 **Analysis of the Interface between Polymer and Thiophosphate Solid Electrolytes**
F. J. Simon, Gießen/DE, M. Hanauer, Renningen /DE, A. Henß, Gießen/DE, F. H. Richter, Gießen/DE, J. Janek, Gießen/DE

P 01.02 **Noble metal-free covalent dye-catalyst assemblies for $H_2$-evolving dye-sensitized photocathodes: Improved performance and transient absorption spectroelectrochemistry**
S. Bold, Jena/DE, J. Massin, Grenoble/FR, Q. Vacher, Grenoble/FR, L. Zedler, Jena/DE, Y. Zhang, Jena/DE, M. Chavarot-Kerlidou, Grenoble/FR, B. Dietzek, Jena/DE, V. Artero, Grenoble/FR

P 01.03 **Ordered mesoporous nickel ferrite ($NiFe_2O_4$) for photocatalysis**
C. Simon, Bayreuth/DE, R. Marschall, Bayreuth/DE

P 01.04 **Towards visible light absorption for photocatalyis by Sn(II) incorporation into defect-pyrochlores**
M. Weiss, Bayreuth/DE, T. Bredow, Bonn/DE, R. Marschall, Bayreuth/DE

P 01.05 **Energy Storage and Release in a Photoactive Surface Anchored Norbornadien Monolayer**
C. Schuschke, Erlangen/DE, F. Waidhas, Erlangen/DE, L. Fromm, Erlangen/DE, A. Görling, Erlangen/DE, M. Jevric, Gothenburg/SE, A. Ugleholdt Petersen, Gothenburg/SE, C. Sumby, Adelaide/AU, K. Moth-Poulsen, Gothenburg/SE, J. Libuda, Erlangen/DE, C. Hohner, Erlangen/DE, M. Schwarz, Erlangen/DE, M. Kettner, Erlangen/DE, O. Brummel, Erlangen/DE, Z. Wang, Gothenburg/SE

P 01.06 **Microwave-assisted Synthesis and Characterization of $MgFe_2O_4$ Nanoparticles towards Applications in Photocatalysis**
A. Bloesser, Bayreuth/DE, R. Marschall, Bayreuth/DE

P 01.07 **Secondary Alcohols as Rechargeable Electrofuels: Electrooxidation of 2-Propanol at Pt-Based Electrodes**
O. Brummel, Erlangen/DE, P. Wasserscheid, Erlangen/DE, F. Waidhas, Erlangen/DE, J. Libuda, Erlangen/DE, S. Haschke, Erlangen/DE, P. Khanipour, Erlangen/DE, G. Sievi, Erlangen/DE, M. Montero, Santa Fe/AR, L. Fromm, Erlangen/DE, A. Görling, Erlangen/DE, J. Bachmann, Erlangen/DE, I. Katsounaros, Erlangen/DE, K. J. J. Mayrhofer, Erlangen/DE

P 01.08 **Flow Synthesis of NiPt-Alloy and PtNi/Pt Core/Shell Nanoparticles**
S. Woderich, Hamburg/DE, C. Gimmler, Hamburg/DE, H. Weller, Hamburg/DE

P 01.09 **Effects of Ni on Proton Uptake of Y- and Sc-doped $BaZrO_3$**
R. Merkle, Stuttgart/DE, Y. Huang, Stuttgart/DE, J. Maier, Stuttgart/DE

P 01.10 **Sodium storage and electrode dynamics of tin-carbon composite electrodes from bulk precursors for sodium-ion batteries**
T. Palaniselvam, Jena/DE, P. Adelhelm, Jena/DE, M. Göktas, Jena/DE

P 01.11 **Hydrogen Evolution on Stainless Steel upon Usage of a Platinum Counter Electrode: A Smart Approach for Decoration with Platinum**
L. Ring, Osnabrück/DE, M. Steinhart, Osnabrück/DE, H. Schäfer, Osnabrück/DE

P 01.12 **Substituted $V_2O_5$ as cathode material for Li-ion batteries**
D. Reiff, Salzburg/AT, S. Pokrant, Salzburg/AT

P 01.13 **Numerical Simulation of the Resistive Switching in Amorphous Oxides**
C. Ader, Aachen/DE, A. Falkenstein, Aachen/DE, M. Martin, Aachen/DE

P 01.14 **Iron based redox masses for rechargeable oxide batteries (ROBs)**
J. Eigen, Aachen/DE, M. Schroeder, Aachen/DE

P 01.15 **Beware of the dark side? Light-driven charge accumulation on Cu(I) 4H-imidazolate complexes for conversion and storage of solar energy**
M. Schulz, Jena/DE

P 01.16 **The Physicochemical and Thermal Investigation of Adiponitrile Based Electrolytes for EDLCs**
A. Bothe, Jena/DE, A. Balducci, Jena/DE

P 01.17 **Aqueous electrolyte with concurrent electrochemical and temperature stability window for redox flow battery**
Z. Huang, Saarbrücken/DE, R. Hempelmann, Saarbrücken/DE, R. Chen, Saarbrücken/DE

P 01.18 **CdSe Quantum Dots as Photosensitizer for Photocatalytic Hydrogen Production**
A. Schleusener, Jena/DE, S. Benndorf, Jena/DE, W. Weigand, Jena/DE, M. Wächtler, Jena/DE

P 01.19 **Reversible intercalation of solvated sodium ions in graphite**
I. Escher, Jena/DE, M. Goktas, Jena/DE, P. Adelhelm, Jena/DE

P 01.20 **Characterisation of transition metal doped $Li^+$-stabilized Na-β"-alumina electrolytes**
C. Dirksen, Hermsdorf/DE, A. I. Agustina, Hermsdorf/DE, M. Schulz, Hermsdorf/DE, M. Stelter, Hermsdorf/DE

P 01.21 **Inverse design method for dye-sensitized solar cells**
C. Fan, Saarbrücken/DE, M. Springborg, Saarbrücken/DE

P 01.22 **ToF-SIMS Study on Li Metal Electrodes**
A. Henß, Gießen/DE, S. Otto, Gießen/DE, U. Maitra, Gießen/DE, M. Rohnke, Gießen/DE, D. Schröder, Gießen/DE, J. Janek, Gießen/DE

P 01.23 **Investigation of an iron manganese oxide with a $Ce_{0.8}Gd_{0.2}O_2$-δ scaffold as redox mass for rechargeable oxide batteries.**
D. Görtz, Aachen/DE, M. Schroeder, Aachen/DE

P 01.24 **Synthesis of Pt@$TiO_2$ Nanocomposite Electrocatalysts for Methanol Oxidation by Hydrophobic Nanoreactor Templating**
F. Fink, Freiburg/DE, T. Unmüssig, Freiburg/DE, A. Fischer, Freiburg/DE

P 01.25 **Optoelectronic properties and charge transfer investigations of CdSe nanocrystals coupled to organic semiconductors**
K. Kumar, Tübingen/DE, J. Lauth, Hannover/DE, Q. Liu, Troyey Cedex/FR, A. Meixner, Tübingen/DE, L. D. A. Siebbeles, HZ Delft/NL, M. Scheele, Tübingen/DE

P 01.26 **Tailormade Unidirectional Electron Transfer in Photocatalysis**
S. Kupfer, Jena/DE

P 01.27 **Thiophene based Semiconductors and Graphene Oxide for Organic Solar Cells**
R. Schaffrinna, München/DE, M. Schwager, München/DE, P. Müller-Buschbaum, Garching/DE

P 01.28 **Ligand exchange procedures for $CuInS_2$ nanocrystals and their impact on charge transport in thin films**
H. Borchert, Oldenburg/DE, H. Reinhold, Oldenburg/DE, D. Scheunemann, Oldenburg/DE, J. Parisi, Oldenburg/DE

P 01.29 **Influence of Water on the Properties of Protic Ionic Liquids**
T. Stettner, Jena/DE, A. Balducci, Jena/DE, B. Kirchner, Bonn/DE, P. Ray, Bonn/DE

P 01.30 **Silicon Transition Metal Silicide Composite Anodes for Lithium Ion Batteries**
M. Ruttert, Münster/DE, V. Siozios, Münster/DE, M. Winter, Münster/DE, T. Placke, Münster/DE

P 01.31 **$TiO_2$ films with ordered macropore arrays for lithographic surface modification**
Q. A. Khan, Osnabrück/DE, M. Ciobanu, Basel/CH, M. Steinhart, Osnabrück/DE

P 01.32 **Functionalisation of graphite electrodes towards an artificial solid electrolyte interface**
M. Bauer, Eggenstein-Leopoldshafen/DE, F. Scheiba, Eggenstein-Leopoldshafen/DE, K. Kutonova, Karlsruhe/DE, B. Bitterer, Karlsruhe/DE, R. Azmi, Eggenstein-Leopoldshafen/DE

P 01.33 **Unravelling the unexpected wavelength-dependent photocatalytic activity of the well-known photocatalyst (bpy)$Re(CO)_3Cl$**
R. Giereth, Ulm/DE, P. Lang, Berlin/DE, M. Schwalbe, Berlin/DE, S. Tschierlei, Ulm/DE

P 01.34 **Mechanistic Studies of Copper Photosensitizers with different extended π-systems**
M. Schmid, Ulm/DE, R. Giereth, Ulm/DE, M. Rentschler, Stuttgart/DE, M. Karnahl, Stuttgart/DE, S. Tschierlei, Ulm/DE

P 01.35 **Sulfur Spillover on carbon materials and possible impacts on metal-sulfur batteries**
L. Medenbach, Jena/DE, I. Escher, Jena/DE, N. Köwitsch, Chemnitz/DE, M. Armbrüster, Chemnitz/DE, L. Zedler, Jena/DE, B. Dietzek, Jena/DE, P. Adelhelm, Jena/DE

P 01.36 **Acid-base properties of triple conducting $Ba_{1-x}Sr_xFeO_{3-d}$ perovskites**
M. F. Hoedl, Stuttgart/DE, D. Gryaznov, Riga/LV, R. Merkle, Stuttgart/DE, E. A. Kotomin, Riga/LV, J. Maier, Stuttgart/DE

P 01.37 **Influence of the Pore Structure on the Activity and Selectivity in Porphyrin Based Fe-N-C Catalysts for the Oxygen Reduction Reaction.**
W. D. Z. Wallace, Darmstadt/DE, L. Ni, Darmstadt/DE, M. Kübler, Darmstadt/DE, S. Wagner, Darmstadt/DE, N. Weidler, Darmstadt/DE, U. I. Kramm, Darmstadt/DE

P 01.38 **Transition metal sulfides for all solid-state batteries**
Z. G. Zhang, Jena/DE, A. L. Santhosha, Jena/DE, J. Buchheim, Jena/DE, P. Adelhelm, Jena/DE

P 01.39 **Porphyrin Adsorption on Anatase and Rutile Powders and Films**
J. Schneider, Salzburg/AT, P. Dzik, Brno/CZ, T. Berger, Salzburg/AT, O. Diwald, Salzburg/AT

P 01.40 **Carbon aerogel from cellulose isolated from coffee husk for energy storage applications**
N. Ramirez, Hannover/DE, F. Sardella, San Juan/AR, C. Deiana, San Juan/AR, N. Bigall, Hannover/DE

P 01.41 **Comparison of butylene and propylene carbonate based electrolytes for supercapacitors**
L. H. Hess, Jena/DE, L. Wittscher, Jena/DE, A. Balducci, Jena/DE

P 01.42 **Equilibrium space charges effect at halide perovskite interactions: The role of ionic charge carriers**
G. Y. Kim, Stuttgart/DE, A. Senocrate, Stuttgart/DE, J. Maier, Stuttgart/DE

P 01.43 **Investigation and optimization of Ni/NaCl granules for Na-$NiCl_2$ high temperature batteries**
B. Schüßler, Hermsdorf/DE, C. Dirksen, Hermsdorf/DE, M. Schulz, Hermsdorf/DE, M. Stelter, Hermsdorf/DE

P 01.44 **Electron deficient oxygen species on iridium and their activity in the oxygen evolution reaction**
L. J. Frevel, Berlin/DE, R. Mom, Berlin/DE, J. J. Velasco-Vélez, Berlin/DE, M. Plodinec, Berlin/DE, A. Knop-Gericke, Berlin/DE, R. Schlögl, Berlin/DE, T. E. Jones, Berlin/DE

P 01.45 **Sodium titanates for electrochemical devices**
J. Buchheim, Jena/DE, B. Fähndrich, Jena/DE, M. Sauer, Jena/DE, A. Schmidt, Jena/DE, P. Adelhelm, Jena/DE

P 01.46 **Polymer electrolyte membranes for applications in vanadium redox flow batteries**
X. Ke, Clausthal-Zellerfeld/DE, M. Drache, Clausthal-Zellerfeld/DE, S. Beuermann, Clausthal-Zellerfeld/DE

P 01.47 **Photocatalytic Water Splitting in Graphitic Functional Materials: Insights from Many-Electron Dynamics**
F. Weber, Berlin/DE, J. C. Tremblay, Metz/FR, A. Bande, Berlin/DE

P 01.48 **The Substrate as a Key Component in Dye-Sensitized Solar Cells**
S. Josten, Mülheim an der Ruhr/DE, T. Koehler, Mülheim an der Ruhr/DE, F. Marlow, Mülheim an der Ruhr/DE

P 01.49 **Mass transport effects in electrocatalytic $CO_2$ reduction on copper**
J. Geisler, Jena/DE, P. Adelhelm, Jena/DE

P 01.50 **The Polaron Migration in Bulk Ceria**
J. P. Arnold, Aachen/DE, S. Grieshammer, Aachen/DE, M. Martin, Aachen/DE

P 01.51 **A systematic study of electrochemical performance of side chain modified dioxazolone-based SEI-forming additives in lithium ion batteries**
A. Vinograd, Münster/DE, S. Röser, Münster/DE, M. Winter, Münster/DE, T. Placke, Münster/DE

P 01.52 **Hydrogen Oxidation Reaction on polycrystalline, nano-sized and single Pt atoms**
M. Özaslan, Oldenburg/DE,

P 01.53 **High capacity electrode materials for rechargeable batteries: A case study on $Cu_3P$**
W. Brehm, Jena/DE, P. Adelhelm, Jena/DE

P 01.54 **Soft-templated carbon-carbon composite electrodes for vanadium redox flow batteries**
M. Schnucklake, Berlin/DE, J. Schneider, Berlin/DE, L. Eifert, Ulm/DE, A. Fetyan, Berlin/DE, R. Zeis, Ulm/DE, C. Roth, Berlin/DE

P 01.55 **P02.1 – The Powder Diffraction and Total Scattering Beamline at PETRAIII, DESY. – Part II (Poster)**
A. Schökel, Hamburg/DE, M. Etter, Hamburg/DE, J. - C. Tseng, Hamburg/DE, S. Wenz, Hamburg/DE, M. Wendt, Hamburg/DE, M. Wharmby, Hamburg/DE

P 01.56 **Synthesis and Application of Novel Visible Light Switchable Photochromic Dithienylethenderivatives in Organic Memory Devices (OMEMs)**
F. Bolz, Cologne/DE, M. Kempf, Cologne/DE, D. Kranz, Cologne/DE, E. Maibach, Cologne/DE, K. Meerholz, Cologne/DE

P 01.57 **Customized Emission Properties of Printed Multilayer Organic Light-Emitting-Diodes via direct Grayscale Lithography for ambient lighting and automotive applications**
B. Ulber, Köln/DE, D. Kourkoulos, Köln/DE, H. Klesper, Köln/DE, K. Meerholz, Köln/DE

P 01.58 **The Fate of Aluminum in (Na,Bi)$TiO_3$-based Piezoelectric Perovskites: a Spectroscopic Approach**
P. B. Groszewicz, Darmstadt/DE, L. Koch, Darmstadt/DE, A. Ayrikyan, Erlangen/DE, K. Weber, Erlangen/DE, K. Albe, Darmstadt/DE, G. Buntkowsky, Darmstadt/DE

P 01.59 **Kinetic Monte Carlo Simulation in Oxygen Ion Conducting Melilites**
J. Schütt, Aachen/DE, S. Grieshammer, Aachen/DE

P 01.60 **$LiNbO_3$ Nanodots and Nanorods from aqueos precursor solutions**
F. Alarslan, Osnabrück/DE, N. Schweinitz, Osnabrück/DE, L. Guo, Osnabrück/DE, P. Hou, Osnabrück/DE, M. Steinhart, Osnabrück/DE, H. Schäfer, Osnabrück/DE

P 01.61 **Enhancing the OER performance of crytomelane-type α-(K)$MnO_2$**
Q. Fu, Bochum/DE, H. Antoni, Bochum/DE, D.M. Morales, Bochum/DE, J. Bizer, Bochum/DE, Y.T. Chen, Bochum/DE, J. Masa, Bochum/DE, W. Kleist, Bochum/DE, W. Schuhmann, Bochum/DE, M. Muhler, Bochum/DE

P 01.62 **The rational design and synthesis of hollow structured functional materials and their studies in energy storage**
S. Gao, Chemnitz/DE, R. Holze, Chemnitz/DE

## Main Topic: Materials for Life Sciences

P 02.01 **The revision of the SI unit mole: Its impact to chemistry highlighted by mass spectrometry and the XRCD method**
A. Pramann, Braunschweig/DE, O. Rienitz, Braunschweig/DE, B. Güttler, Braunschweig/DE

P 02.02 **Fast near infrared imaging of serotonin with fluorescent nanosensors**
M. Dinarvand, Göttingen/DE, L. Erpenbeck, Göttingen/DE, S. Kruss, Göttingen/DE

P 02.03 **Probing the dissolution behaviour of phosphate glasses using cobalt ions**
N. Sawangboon, Jena/DE, D. A. Avila Salazar, Jena/DE, W. Hartramph, Jena/DE, P. Bellstedt, Jena/DE, Y. Oi, Nagoya/JP, T. Kasuga, Nagoya/JP, D. S. Brauer, Jena/DE

P 02.04 **SiNWs decorated with Ag and Au for SERS detection of bacterial biomarker in complex matrix**
O. Zukovskaja, Jena/DE, S. Shevchenko, Moscow/RU, V. Sivakov, Jena/DE, K. Weber, Jena/DE, L. Osminkina, Jena/DE, D. Cialla-May, Jena/DE, J. Popp, Jena/DE

P 02.05 **Detection of bacterial motifs with near-infrared fluorescent single walled carbon nanotubes**
R. Nißler, Göttingen/DE, S. Hamsici, Göttingen/DE, F. A. Mann, Göttingen/DE, E. Polo, Göttingen/DE, S. Kruss, Göttingen/DE

P 02.06 **Gelatin for sensor applications – a bio-based humidity sensor**
D. Firzlaff, Dresden/DE, H. Kettwig, Dresden/DE, P. Otto, Dresden/DE, K. Harre, Dresden/DE, G. Naumann, Dresden/DE, Y. Joseph, Freiberg/DE

P 02.07 **Insights on the particle morphology of microgel suspensions from FTIR spectroscopy**
L. Wiehemeier, Bielefeld/DE, T. Kottke, Bielefeld/DE, T. Hellweg, Bielefeld/DE

P 02.08 **Evaluating the influence of crystallisation on in vitro apatite mineralisation in fluoride-containing bioactive glasses**
A. Contreras Jaimes, Jena/DE, G. Kirste, Jena/DE, J. Massera, Tampere/FI, N. Karpukhina, London/GB, R. Hill, London/GB, D. S. Brauer, Jena/DE

P 02.09 **Nonlinear Optical Niobate Nanocrystals as Harmonic Markers**
K. Kömpe, Osnabrück/DE, M. Haase, Osnabrück/DE, M. Imlau, Osnabrück/DE, C. Kijatkin, Osnabrück/DE, M. König, Osnabrück/DE

P 02.10 **Grafting Polymerisation on Polyetheretherketone (PEEK) Surfaces to Improve PEEK-based Bone Implant Material**
A. L. May, Konstanz/DE, M. Gießl, Konstanz /DE, H. Cölfen, Konstanz/DE

P 02.11 **Uncommon Structures in Hyaluronate/Surfactant Complexes**
S. Bayer, Berlin/DE, P. Buchold, Berlin/DE, Y. Talmon, Haifa/IL, M. Gradzielski, Berlin/DE

P 02.12 **Investigation of metal-organic-frameworks on flexible substrates for low-cost sensor applications**
J. L. Krüger, Freiberg/DE, F. Selbmann, Freiberg/DE, Y. Joseph, Freiberg/DE

P 02.13 **Fabrication and Characterization of flexible and low cost Chemiresistors based on Noble Metal Nanoparticle Organic Composites for Gas sensing applications**
F. Selbmann, Freiberg/DE, S. Rabe, Freiberg/DE, Y. Joseph, Freiberg/DE

P 02.14 **Characterization of a new rylene-based lysosomal marker dye**
A. Tannert, Jena/DE, K. Peneva, Jena/DE, U. Neugebauer, Jena/DE

P 02.15 **Drug release from bone cement and diffusion in bone marrow**
C. Kern, Gießen/DE, A. Pauli, Gießen/DE, M. Schumacher, Dresden/DE, M. Gelinsky, Dresden/DE, S. Ray, Gießen/DE, M. Rohnke, Gießen/DE

P 02.16 **Core-Crosslinked Worm-like Micelles from Polyether-based Diblock Terpolymers**
J. K. Elter, Jena/DE, F. H. Schacher, Jena/DE

**Main Topic: 2D-Materials, Nanomaterials, Surfaces and Interfaces**

P 03.02 **Silane Nanodot Arrays by Capillary Nanostamping**
M. Philippi, Osnabrück/DE, C. You, Osnabrück/DE, C. Richter, Osnabrück/DE, M. Schmidt, Osnabrück/DE, D. Liße, Osnabrück/DE, J. Piehler, Osnabrück/DE, M. Steinhart, Osnabrück/DE

P 03.03 **Reactivity of the $Fe_3O_4$(111) Surface towards Oxidative Dehydrogenation of Methanol: A Quantum Chemical Study**
J. Paier, Berlin/DE, X. Li, Berlin/DE

P 03.05 **Pd-Ga model SCALMS: Characterization and thermal stability in UHV and at high pressures**
C. Stumm, Erlangen/DE, M. Kettner, Erlangen/DE, C. Hohner, Erlangen/DE, C. Schuschke, Erlangen/DE, M. Schwarz, Erlangen/DE, J. Libuda, Erlangen/DE

P 03.06 **Dissociation of Water on Atomically-Defined Cobalt Oxide Nanoislands and $Co_3O_4$(111) Thin Films: An Infrared Reflection Absorption Spectroscopy Study**
C. Hohner, Erlangen/DE, T. Wähler, Erlangen/DE, R. Schuster, Erlangen/DE, Z. Sun, Aarhus/DK, G. Yan, Los Angeles/US, P. Sautet, Los Angeles/US, J. V. Lauritsen, Aarhus/DK, J. Libuda, Erlangen/DE

P 03.07 **The Challenges of growing Hybrid-Organic-Inorganic Interfaces**
J. - N. Luy, Marburg/DE, R. Tonner, Marburg/DE

P 03.08 **Autonomous Interface Self-Assembly and Self-Healing: Monitored by Restoration of UV-vis Absorption Spectra of Self-Assembled Thiazole Layers**
M. L. Hupfer, Jena/DE, F. Herrmann-Westendorf, Jena/DE, M. Kaufmann, Jena/DE, D. Weiß, Jena/DE, R. Beckert, Jena/DE, B. Dietzek, Jena/DE, M. Presselt, Jena/DE

P 03.09 **2D Noble Metal Aerogels**
K. Hiekel, Dresden/DE, M. Georgi, Dresden/DE, S. Jungblut, Dresden/DE, A. Eychmüller, Dresden/DE

P 03.10 **Fluorescent and conductive hybrid materials - Coupled organic-inorganic nanostructures (COIN) as an efficient approach to quantum light emitting diodes**
J. C. Wahl, Tübingen/DE, C. Kirsch, Tübingen/DE, P. Frech, Tübingen/DE, M. Scheele, Tübingen/DE

P 03.11 **Atomic oxidation of Co-Tetraphenylporphyrin films grown on HOPG: The role of the support**
J. Hauns, Karlsruhe/DE, A. Böttcher, Karlsruhe/DE, M. Kappes, Karlsruhe/DE

P 03.12 **Atomic oxidation of curved graphitic sheets**
A. Böttcher, Karlsruhe/DE, J. Hauns, Karlsruhe/DE, J. Wüst, Karlsruhe/DE, J. Weippert, Karlsruhe/DE, R. Fischer, Karlsruhe/DE, F. Hennrich, Karlsruhe/DE, D. Strelnikov, Karlsruhe/DE, M. M. Kappes, Karlsruhe/DE

P 03.13 **Exfoliated Near-Infrared Fluorescent Calcium Copper Silicate Nano Sheets for Biomedical Imaging**
G. Selvaggio, Göttingen/DE, H. Preiß, Göttingen/DE, E. Polo, Göttingen/DE, A. Spreinat, Göttingen/DE, S. Kruss, Göttingen/DE

P 03.14 **Bioinspired capillary microstamping enabled by hierarchically porous block copolymer monoliths**
L. Guo, Osnabrück/DE, M. P Philippi, Osnabrück/DE, M. S. Steinhart, Osnabrück/DE

P 03.15 **Universal Synthesis of Metal Gels at Room and Low Temperatures**
M. Georgi, Dresden/DE, A. Benad, Dresden/DE, B. Klemmed, Dresden/DE, K. Hiekel, Dresden/DE, A. Eychmüller, Dresden/DE

P 03.16 **UV cross-linked smart microgel membranes as free-standing diffusion barriers and nanoparticle bearing catalytic films**
M. Dirksen, Bielefeld/DE, T. Brändel, Bielefeld/DE, S. Großkopf, Bielefeld/DE, S. Knust, Bielefeld/DE, J. Bookhold, Bielefeld/DE, D. Anselmetti, Bielefeld/DE, T. Hellweg, Bielefeld/DE

P 03.17 **In Operando Vibrational Spectroscopy of $CO_2$ Reduction Reactions at Platinum/Ionic Liquid Interfaces**
B. Braunschweig, Münster/DE, A. Kemna, Münster/DE, B. Ratschmeier, Münster/DE

P 03.18 **Creating multifunctional nIR-fluorescent carbon nanotubes by using $sp^3$ defect chemistry**
N. Herrmann, Göttingen/DE, F. A. Mann, Göttingen/DE, D. Meyer, Göttingen/DE, S. Kruss, Göttingen/DE

P 03.19 **A DFT study on the interactions between nano clusters and amino acids**
Y. Dong, Saarbrücken/DE, H. Xing, Saarbrücken/DE

P 03.20 **Optical constants of carbon nanomembranes**
R. Patra, Jena/DE, S. V. Vegesna, Jena/DE, Z. Tang, Jena/DE, A. Turchanin, Jena/DE, H. Schmidt, Jena/DE

P 03.21 **Synthesis of multidimensional CdSe/CdS Core/Shell Systems and their optical characterization**
S. Krohn, Hamburg/DE, T. Jochum, Hamburg/DE, J. Niehaus, Hamburg/DE, A. Mews, Hamburg/DE

P 03.22 **Interfacial Behaviour of Surfaces modified with 2D-Ionic Liquid Films**
T. Sieling, Oldenburg/DE, I. Brand, Oldenburg/DE

P 03.23 **Correlated, Dual-Beam Optical Gating in Coupled Organic-Inorganic Nanostructures**
K. M. Wurst, Tübingen/DE, M. Bender, Heidelberg/DE, J. Lauth, Hannover/DE, S. Maiti, Tübingen/DE, T. Chassé, Tübingen/DE, A. Meixner, Tübingen/DE, L. D. A. Siebbeles, Delft/NL, U. H. F. Bunz, Heidelberg/DE, K. Braun, Tübingen/DE, M. Scheele, Tübingen/DE

P 03.24 **Switchable Plasmonic Properties of Nickel Sulfide Nanocrystals**
R. Himstedt, Hannover/DE, D. Hinrichs, Hannover/DE, D. Dorfs, Hannover/DE

P 03.25 **Synthesis of Mesoporous Polymers and Hybrid Materials with Adjustable Pore Size, Porosity and Morphology**
Y. Qawasmi, Stuttgart/DE, P. Atanasova, Stuttgart/DE, K. Abitaev, Stuttgart/DE, J. Bill, Stuttgart/DE, T. Sottmann, Stuttgart/DE

P 03.26 **Characterisation of oxide thin films as support materials for deposited clusters**
T. Schmidt, Darmstadt/DE, J. Baranyai, Darmstadt/DE, F. Neuberger, Darmstadt/DE, R. Schäfer, Darmstadt/DE

P 03.27 **Thermoelectric Properties of Aerogels of PbS Nanoplatelets**
L. F. Klepzig, Hannover/DE, J. Poppe, Hannover/DE, E. Klein, Hamburg/DE, C. Klinke, Hamburg/DE, A. Feldhoff, Hannover/DE, N. C. Bigall, Hannover/DE

P 03.28 **Spatial Resolution of TERS under Non-Resonant and Resonant Conditions – A Quantum Chemical Investigation**
K. Fiederling, Jena/DE, V. Deckert, Jena/DE, S. Gräfe, Jena/DE, S. Kupfer, Jena/DE

P 03.29 **Modification of CdSe/CdS nanorod aerogels by silica coating**
P. Rusch, Hannover/DE, M. Rosebrock, Hannover/DE, B. Schremmer, Hannover/DE, F. Lübkemann, Hannover/DE, M. Jahns, Hannover/DE, P. Behrens, Hannover/DE, N. C. Bigall, Hannover/DE

P 03.30 **Characterisation of a charged particle fraction in a DC magnetronsputtering cluster source**
J. Baranyai, Darmstadt/DE, D. J. Büchner, Darmstadt/DE, F. Neuberger, Darmstadt/DE, T. Schmidt, Darmstadt/DE, R. Schäfer, Darmstadt/DE

P 03.31 **Phosphonic Acids on Atomically-Defined $Co_3O_4$(111): Adsorption in the Electrochemical Environment**
M. Bertram, Erlangen/DE, C. Schuschke, Erlangen/DE, F. Waidhas, Erlangen/DE, M. Schwarz, Erlangen/DE, C. Hohner, Erlangen/DE, M. A. Montero, Santa Fe/AR, O. Brummel, Erlangen/DE, J. Libuda, Erlangen/DE

P 03.32 **From polymer nanoparticles towards mesoporous materials: influence of the particle size and polydispersity**
K. Abitaev, Stuttgart/DE, Y. Qawasmi, Stuttgart/DE, P. Atanasova, Stuttgart/DE, J. Bill, Stuttgart/DE, T. Sottmann, Stuttgart/DE

P 03.33 **Supramolecular structures of amphiphilic dyes for photochemical and photophysical applications**
M. Presselt, Jena/DE, M. Hupfer, Jena/DE, M. Kaufmann, Jena/DE, F. Herrmann-Westendorf, Jena/DE, S. Das, Jena/DE, B. Dietzek, Jena/DE

P 03.34 **Macroscopic shape design of nanoparticle assemblies**
B. Schremmer, Hannover/DE, A. Freytag, Hannover/DE, F. Lübkemann, Hannover/DE, N. C. Bigall, Hannover/DE

P 03.35 **CdSe based coupled organic-inorganic nanostructures: hybrid materials with tunable electric and optical properties.**
B. Märker, Tübingen/DE, F. Wackenhut, Tübingen/DE, M. Scheele, Tübingen/DE

P 03.36 **Photoluminescence-Driven Broadband Transmitting Directional Optical Nanoantennas**
A. T. M. Yesilyurt, Jena/DE, K.-M. See, Hsinchu/TW, F.-C. Lin, Hsinchu/TW, T.-Y. Chen, Hsinchu/TW, Y.-X. Huang, Hsinchu/TW, C.-H. Huang, Hsinchu/TW, J.-S. Huang, Jena/DE

P 03.37 **Gold Superparticles with Significantly Red-Shifted Plasmon Resonance**
P. Buhani, Oldenburg/DE, J. Lauth, Hannover/DE, K. Al-Shamery, Oldenburg/DE

P 03.38 **Functional Structural Elements in Carbon-Based Nanomaterials: Alternant vs. Non-Alternant Topology and Interface Chemical Bond**
S. R. Kachel, Marburg/DE, B. P. Klein, Marburg/DE, M. Franke, Jülich/DE, C. K. Krug, Marburg/DE, L. Ruppenthal, Marburg/DE, F. C. Bocquet, Jülich/DE, W. Hieringer, Erlangen/DE, R. J. Maurer, Warwick/GB, R. Tonner, Marburg/DE, C. Kumpf, Jülich/DE, J. M. Gottfried, Marburg/DE

P 03.39 **Synthesis of Two-Dimensional Metal-Chalcogenide Nanosheets and their Heterostructures**
T. Tsangas, Hamburg/DE, C. Ruhmlieb, Hamburg/DE, A. Mews, Hamburg/DE

P 03.40 **Anisotropic Nanoparticles via Self-Templating**
M. Seybold, Konstanz/DE, K. Boldt, Konstanz/DE

P 03.41 **Synthesis, Characterization and Stabilization of Ultrathin 2D PbS-Nanoplatelets**
J. Neil, Oldenburg/DE, K. Al-Shamery, Oldenburg/DE, J. Lauth, Oldenburg/DE

P 03.42 **Goos-Hänchen Shift and Plasmon Coupling of Whispering-gallery Modes in a Fluorescent π-conjugated Polymer Microsphere on Ultra Flat Gold Surface**
J. - S. Huang, Jena/DE, J. - Y. Chen, Hsinchu/TW, Z. - H. Lin, Jena/DE, S. Kushida, Tsukuba/JP, Y. Yamamoto, Tsukuba/JP

P 03.43 **Theoretical Investigations on Perylene-Based Interface Systems**
S. Wirsing, Würzburg/DE, M. Hänsel, Heidelberg/DE, P. Tegeder, Heidelberg/DE, B. Engels, Würzburg/DE

P 03.44 **Controlled self-assembly of cadmium-based semiconductor nanoparticles into self-supported, porous 3D structures**
D. Zámbó, Hannover/DE, S. Sánchez-Paradinas, Salamanca/ES, N. C. Bigall, Hannover/DE

P 03.45 **Reporter-particle loaded single plasmonic nanovoids and their SERS activity**
D. Zámbó, Budapest/DE, D. P. Szekrényes, Budapest/HU, S. Pothorszky, Budapest/HU, N. Nagy, Budapest/HU, A. Deák, Budapest/HU

P 03.46 **Inkjet Printing: Deposition of Nanoparticles and Assembling of Three-dimensional Nanoparticle Based Gel Structures**
F. Lübkemann, Hannover/DE, J. F. Miethe, Hannover/DE, R. Anselmann, Marl/DE, P. Rusch, Hannover/DE, T. Kodanek, Hannover/DE, T. Heinemeyer, Hannover/DE, D. Natke, Hannover/DE, D. Zok, Hannover/DE, D. Dorfs, Hannover/DE, N. C. Bigall, Hannover/DE

P 03.47 **Photoelectrochemical sensors composed of inkjet-printed nanoparticle gels**
Y. Wang, Hannover/DE, D. Zámbó, Hannover/DE, N. C. Bigall, Hannover/DE, F. Lübkemann, Hannover/DE, A. Schlosser, Hannover/DE, J. Miethe, Hannover/DE

P 03.48 **Atomistic simulations of a photo-responsive metal organic framework using an ab-initio parametrized force field**
E. Kolodzeiski, Münster/DE, S. Amirjalayer, Münster/DE

P 03.49 **Synthesis and Characterization of Atomically Thin Colloidal WS2-Nanosheets**
L. Harms, Oldenburg/DE, K. Al-Shamery, Oldenburg/DE, J. Lauth, Hannover/DE

P 03.50 **Metal-insulator-metal plasmonic Doppler grating for hydrogen sensing**
Y. J. Chen, Jena/DE, F. - C. Lin, Hsinchu/TW, C. - C. Liu, Hsinchu/TW, J. - S. Huang, Jena/DE

P 03.51 **Synthesis and Characterization of CdSe/CdS Dual Nanorods**
D. Fischli, Konstanz/DE, V. Heuthe, Konstanz/DE, F. Enders, Konstanz/DE, K. Boldt, Konstanz/DE

P 03.52 **Size-tuning of UV emitting $NaGdF_4$ upconversion nanocrystals**
J. Czerny, Osnabrück/DE, M. Haase, Osnabrück/DE

P 03.53 **Colloidal Crystals of $NaYF_4$ Upconversion Nanocrystals**
C. Homann, Osnabrück/DE, J. Bolze, Almelo/NL, M. Haase, Osnabrück/DE

P 03.54 **Investigations of the Self-Assembly of Nanoparticles into Supercrystals**
A. Reichhelm, Dresden/DE, D. Haubold, Dresden/DE, A. Eychmüller, Dresden/DE

P 03.55 **Aromatic self-assembled monolayers as protective layer for silver SERS substrates**
C. Neumann, Jena/DE, M. Frey, Jena/DE, M. Küllmer, Jena/DE, S. Pahlow, Jena/DE, A. Winter, Jena/DE, M. Jahn, Jena/DE, U. Hübner, Jena/DE, D. Cialla-May, Jena/DE, K. Weber, Jena/DE, J. Popp, Jena/DE, A. Turchanin, Jena/DE

P 03.56 **Photoactive molecular nanosheets with 1 nm thickness**
M. Küllmer, Jena/DE, F. Herrmann-Westendorf, Jena/DE, S. Götz, Jena/DE, C. Neumann, Jena/DE, P. Endres, Jena/DE, A. Winter, Jena/DE, U. S. Schubert, Jena/DE, B. Dietzek, Jena/DE, A. Turchanin, Jena/DE

P 03.57 **Raman spectra vs. transport properties in graphene field-effect transistors suitable for applications in ultrasensitive biodetection**
D. Hüger, Jena/DE, D. Kaiser, Jena/DE, C. Neumann, Jena/DE, T. Weimann, Braunschweig/DE, A. Turchanin, Jena/DE

P 03.58 **Electron Irradiation of Carboxylate SAMs on Ag(111) substrate – The Odd-Even effect.**
M. Szwed, Kraków/PL, C. Neumann, Jena/DE, M. Frey, Jena/DE, Z. Tang, Jena/DE, P. Cyganik, Kraków/PL, A. Turchanin, Jena/DE

P 03.59 **Growth mechanism of atomic layer deposited SiO2 under external electric field: computational and experimental study**
M. Becker, Jena/DE, M. Sierka, Jena/DE, A. Szeghalmi, Jena/DE, V. Beladiya, Jena/DE

P 03.60 **Structural and Energetic Properties of TinOmClusters**
M. Molayem, Saarbrücken/DE, M. Springborg, Saarbrücken/DE, N. Goel, Chandigarh/IN

P 03.61 **Platinum-clusters on $TiO_2$ - hydrogen evolution reaction catalysis within the sub-nanometer regime**
F. Neuberger, Darmstadt/DE, T. Cottre, Darmstadt/DE, B. Kaiser, Darmstadt/DE, W. Jaegermann, Darmstadt/DE, R. Schäfer, Darmstadt/DE

P 03.62 **Synthesis of nanoporous gold-polymer supported stamps for capillary nanostamping**
R. Periz, Osnabrück/DE, J. Markmann, Geesthacht/DE, M. Steinhart, Osnabrück/DE

P 03.64 **Oxidic 3D scaffold structures for wetting-assisted shaping and bonding of polymers**
F. Vazquez Luna, Osnabrück/DE, M. Steinhart, Osnabrück/DE, J. Martins de Souza e Silva, Halle(Saale)/DE, R. Wehrspohn, Halle(Saale)/DE, G. Dittrich, Hamburg/DE, P. Huber, Hamburg/DE, B. Oberleiter, Leipzig/DE, D. Enke, Leipzig/DE

P 03.65 **Network Morphology of Smart Colloidal Microgels resolved by Super-Resolution Optical Microscopy**
O. Wrede, Bielefeld/DE, S. Bergmann, Bielefeld/DE, T. Huser, Bielefeld/DE, T. Hellweg, Bielefeld/DE

P 03.66 **Functionalization of Polymer Surfaces with Ordered Molybdenum Disulphide Microparticle Arrays**
W. Han, Osnabrück/DE, S. Luo, München/DE, G. S. Duesberg, München/DE, M. Steinhart, Osnabrück/DE

P 03.67 **PbSe Nanoplatelets of Varied Thickness via Cation Exchange from CdSe Nanoplatelets**
T. Galle, Dresden/DE, V. Lesnyak, Dresden/DE, M. S. Khoshkhoo, Dresden/DE, B.-M. Garcia, Genoa/IT, C. Meerbach, Dresden/DE, A. Eychmüller, Dresden/DE

P 03.68 **Towards novel two-dimensional systems for molecular photocatalysis**
Z. Tang, Jena/DE, A. Winter, Jena/DE, A. Winter, Jena/DE, F. Herrmann-Westendorf, Jena/DE, M. Küllmer, Jena/DE, C. Neumann, Jena/DE, U. S. Schubert, Jena/DE, B. Dietzek, Jena/DE, A. Turchanin, Jena/DE

P 03.69 **The impurity position in a Mn-doped $Bi_2Te_3$ topological insulator investigated by x-ray fluorescence holography and x-ray absorption fine structure**
J. R. Stellhorn, Hamburg/DE, S. Hosokawa, Kumamoto/JP, T. Matsushita, Sayo/JP, N. Happo, Hiroshima/JP, K. Kimura, Nagoya/JP, K. Hayashi, Nagoya/JP

P 03.70 **Fabrication of Micro-Structured Nano Porous Polymers by Combination of Hot Embossing and $CO_2$ Treatment**
G. Wiegand, Eggenstein-Leopoldshafen/DE, A.-S. Böse, Karlsruhe/DE, H. Hölscher, Karlsruhe/DE, S. Johnsen, Karlsruhe/DE, M. Schneider, Karlsruhe/DE, J. Syurik, Karlsruhe/DE, M. Worgull, Karlsruhe/DE

P 03.71 **Structure and dynamical properties of organoferrogels with mobile and weakly coupled magnetic nanoparticles**
A. Eremin, Magdeburg/DE, H. Nádasi, Magdeburg/DE, R. Stannarius, Magdeburg/DE, J. Bläsing, Magdeburg/DE, S. Aya, Tokyo/JP, F. Araoka, Tokyo/JP, J. Landers, Duisburg-Essen/DE, H. Wende, Duisburg-Essen/DE, J. Zhong, Braunschweig/DE, F. Ludwig, Braunschweig/DE, K. Koch, Köln/DE, A. M. Schmidt, Köln/DE

P 03.72 **Nanoparticles in the lungs role of electrostatics in surfactant vesicle aggregation and supported lipid bilayers formation**
J. - F. Berret, Paris/FR, F. Mousseau, Paris/FR, E. K. Oikonomou, Paris/FR

P 03.73 **Magnetic wires for active micro-rheology and biophysics**
J. - F. Berret, Paris/FR,

P 03.74 **The relationship between surface charge and shapes of crystalline materials**
Zhou, M./DE, M. Springborg, Saarbrücken/DE

P 03.75 **Metal / polymer hybrid nanoastructures based on poly (2-acrylamido glycolic acid) (PAGA)**
L. Volkmann, Jena/DE, F. H. Schacher, Jena/DE

## Biophysical Chemistry and Biophotonics

P 04.01 **Establishment of a Quantum Cascade Laser Setup for Time-Resolved Infrared Spectroscopy on Irreversible Protein Reactions**
J. L. Klocke, Bielefeld/DE, T. Kottke, Bielefeld/DE

P 04.02 **Comparison of FLIM Data Analysis Schemes**
S. Guo, Jena/DE, T. Meyer, Jena/DE, J. Popp, Jena/DE, T. Bocklitz, Jena/DE

P 04.03 **Comparism of cultivation media to evaluate a Raman compartible cultivation method for a databank of lung associated bacteria**
C. Wichmann, Jena/DE, M. Chhallani, Jena/DE, T. Bocklitz, Jena/DE, P. Rösch, Jena/DE, J. Popp, Jena/DE

P 04.04 **Photonics as a non-destructive investigation strategy for biofilms**
H. Shen, Jena/DE, P. Rösch, Jena/DE, M. Pletz, Jena/DE, J. Popp, Jena/DE

P 04.05 **Raman Microspectroscopy and Stable Isotope Probing for Single Cell Analysis**
G. Azemtsop Matanfack, Jena/DE, M. Schröder, Jena/DE, P. Rösch, Jena/DE, J. Popp, Jena/DE

P 04.06 **Towards point-of-care cefuroxime monitoring in urine via fiber-enhanced Raman spectroscopy**
T. Frosch, Jena/DE, D. Yan, Jena/DE, J. Popp, Jena/DE, T. Frosch, Jena/DE

P 04.07 **Fast differentiation of enteric pathogenic bacteria using Raman Spectroscopy**
A. Nakar, Jena/DE, K. Weber, Jena/DE, P. Rösch, Jena/DE, J. Popp, Jena/DE

P 04.08 **Solvent effects on a ruthenium-catalyzed ring-closing metathesis reaction in a modified alpha-cristobalit-mesopore**
H. Kraus, Stuttgart/DE, J. Rybka, Marburg/DE, U. Tallarek, Marburg/DE, N. Hansen, Stuttgart/DE

P 04.09 **The hydration properties of lysozyme under high hydrostatic pressure**
I. Kolling, Bochum/DE, K. Mauelshagen, Bochum/DE, G. Schwaab, Bochum/DE, M. Havenith, Bochum/DE

P 04.10 **Exploring Raman microspectroscopy as a tool for pathogen identification of blood stream infections**
B. Lorenz, Jena/DE, P. Rösch, Jena/DE, J. Popp, Jena/DE

P 04.11 **Multispectral Near-Infrared Absorption Imaging for Histology**
A. Spreinat, Göttingen/DE, G. Selvaggio, Göttingen/DE, L. Erpenbeck, Göttingen/DE, S. Kruss, Göttingen/DE

P 04.12 **Label-free mapping and determination of glycogen and other macromolecules in C. elegans**
J. Rüger, Jena/DE, A. S. Mondol, Jena/DE, A. Cherkas, Jena/DE, L. - O. Klotz, Jena/DE, J. Popp, Jena/DE, I. W. Schie, Jena/DE

P 04.13 **Activation energies define kinetic (in)stabilities of therapeutic antibodies**
R. Weber, Halle(Saale)/DE, D. Ng, München/DE, N. Tschammer, München/DE, P. Garidel, Biberach(Riss)/DE, D. Hinderberger, Halle(Saale)/DE, M. Blech, Biberach(Riss)/DE

P 04.14 **Molecular Water Interaction of Ice-nucleating Microorganisms**
M. Lukas, Mainz/DE, A. T. Kunert, Mainz/DE, J. Fröhlich-Nowoisky, Mainz/DE, A. Abdelmonem, Karlsruhe/DE, U. Pöschl, Mainz/DE, M. Bonn, Mainz/DE, E. H. G. Backus, Vienna/AT

P 04.15 **SFG on Ice-Nucleating agent Cholesterol**
P. Sudera, Mainz/DE, M. Bonn, Mainz/DE, G. Sosso, Warwick/GB, E. Backus, Vienna/AT

P 04.16 **Effect of pH on pyruvic acid at the air/liquid interface and in bulk**
V. Wank, Wank/DE, M. Bonn, Mainz/DE, E. H. G. Backus, Vienna/AT, J. Cyran, Mainz/DE

P 04.17 **Evaluating Liver Fibrosis by multimodal Nonlinear Imaging Techniques**
M. Rodewald, Jena/DE, J. Popp, Jena/DE, M. Schmitt, Jena/DE, T. Meyer, Jena/DE, M. Bauer, Jena/DE, A. Press, Jena/DE, S. Huschke, Jena/DE, S. Schubert, Jena/DE, P. Klemm, Jena/DE

P 04.18 **Probing peptide interaction on biomembranes with SFG**
K. Machel, Mainz/DE, E. H. G. Backus, Vienna/AT, M. Bonn, Mainz/DE, H. Lu, Mainz/DE

P 04.19 **Pressure-Induced Dissolution and Reentrant Formation of Condensed, Liquid–Liquid Phase-Separated Elastomeric alpha-Elastin**
H. Cinar, Dortmund/DE, S. Cinar, Dortmund/DE, H. S. Chan, Toronto/CA, R. Winter, Dortmund/DE

## Catalysis & Electrochemistry

P 05.01 **Analysing Adsorbates on Model-Catalysts at Atomistic Scale**
A. Baumann, Kiel/DE, S. Attia, Kiel/DE, M. C. Schmidt, Kiel/DE, C. Schröder, Kiel/DE, S. Schauermann, Kiel/DE

P 05.02 **Influence of pyrene substituted light-harvesting complexes on the light-driven catalysis for hydrogen evolution**
C. Müller, Jena/DE, P. Wintergerst, Ulm/DE, S. Rau, Ulm/DE, B. Dietzek, Jena/DE

P 05.03 **Quantification of Defects in Titanium Dioxide**
M. Willms, Oldenburg/DE, L. Mohrhusen, Oldenburg/DE, J. Kräuter, Oldenburg/DE, K. Al-Shamery, Oldenburg/DE

P 05.04 **Synthesis and Characterization of Amine-stabilized Pt/Ni Bimetallic Nanoparticles Fabricated by a Seed-mediated Growth Approach**
M. Siemer, Oldenburg/DE, K. Al-Shamery, Oldenburg/DE

P 05.05 **Towards (Multi)Photoelectron Accumulation – Quantum Chemical Investigations on the Photophysics of novel Ruthenium Polypyridyl Complexes**
P. Traber, Jena/DE, J. Schindler, Jena/DE, S. Kupfer, Jena/DE, B. Dietzek, Jena/DE, S. Gräfe, Jena/DE

P 05.06 **Multi component nanocrystals with catalytic and plasmonic properties**
M. Niemeyer, Hannover/DE, D. D. Dorfs, hannover/DE

P 05.07 **Theoretical mechanism study of C-H functionalization catalysed by a dirhodium catalyst**
M. Zhou, Saarbruecken/DE, M. Springborg, Saarbrücken/DE

P 05.08 **Defect dependent adsorption of organic molecules on tungsten oxide clusters on rutile $TiO_2$**
L. Mohrhusen, Oldenburg/DE, M. Grebien, Oldenburg/DE, K. Al-Shamery, Oldenburg/DE

P 05.09 **Selective Hydrogenation of 5-Methylfurfural catalysed with Amine-stabilized Platinum Nanoparticles on an Oxidic Support**
N. Brinkmann, Oldenburg/DE, M Siemer, Oldenburg/DE, A Damps, Oldenburg/DE, F Rößner, Oldenburg/DE, K Al-Shamery, Oldenburg/DE

P 05.10 **Influence of Precursor-to-Template ratio on Structural and Catalytic Parameters for Polypyrrole-based Fe-N-C-catalysts for the ORR**
S. Paul, Darmstadt/DE, N. Weidler, Darmstadt/DE, M. Kübler, Darmstadt/DE, I. Martinaiou, Darmstadt/DE, S. Wagner, Darmstadt/DE, U. I. Kramm, Darmstadt/DE

P 05.11 **Synthesis of compositionally graded Ba:TiO2 nanocomposites: gas phase functionalization and charge separation**
E. Neige, Salzburg/AT, G. Zickler, Salzburg/AT, O. Diwald, Salzburg/AT

P 05.12 **Structure evolution of Ceria–Supported Ultrafine Cu Clusters under Reactive Gases**
X. Yu, Eggenstein-Leopoldshafen/DE, C. Yang, Eggenstein-Leopoldshafen/DE, A. Nefedov, Eggenstein-Leopoldshafen/DE, C. Wöll, Eggenstein-Leopoldshafen/DE, Y. Wang, Eggenstein-Leopoldshafen/DE

P 05.13 **Pulsed PECVD of g-$C_3N_4$ with Enhanced Photocatalytic Activity**
M. Taplick, Hamburg/DE, C. Ruhmlieb, Hamburg/DE, T. Kipp, Hamburg/DE, A. Mews, Hamburg/DE

P 05.14 **Computational Study on a Hydrogen evolving Ruthenium-Platinum-based Photocatalyst**
P. Seeber, Jena/DE, S. Kupfer, Jena/DE, S. S. Gräfe, Jena/DE

P 05.15 **Mechanical Activation of a Copper Biscarbene catalyst using Single-Molecule Force Spectroscopy**
M. S. Sammon, Innsbruck/AT, M. Biewend, Halle/DE, P. Michael, Halle/DE, M. Ončák, Innsbruck/AT, W. H. Binder, Halle/DE, M. K. Beyer, Innsbruck/AT

P 05.16 **Preparation of fibrous metallic glasses by rapid quenched technique**
M. Buchmann, Jena/DE, J. Buchheim, Jena/DE, N. Taghizadeh, Jena/DE, J. C. Binzer, Jena/DE, P. Adelhelm, Jena/DE

P 05.17 **Activation of Methane by Free Gold Clusters: Ion-Trap Kinetics, IR-Spectroscopy, and Ab Initio Theory**
S. M. Lang, Ulm/DE, T. M. Bernhardt, Ulm/DE, J. M. Bakker, Nijmegen/NL, R. N. Barnett, Atlanta/US, U. Landman, Atlanta/US

P 05.18 **Towards Catalysis under Flow Conditions in Block Copolymer Membranes**
J. H. Kruse, Jena/DE, I. Romanenko, Jena/DE, I. Trentin, Ulm/DE, C. Streb, Ulm/DE, F. H. Schacher, Jena/DE

P 05.19 **Towards catalytically active block copolymers**
J. Eichhorn, Jena/DE, I. Romanenko, Jena/DE, F. H. Schacher, Jena/DE

P 05.20 **Influence of electrode material and sub-stoichiometry on resistive switching of amorphous gallium oxide**
P. Hein, Aachen/DE, M. Martin, Aachen/DE

P 05.21 **Probing the Change in the hydration of electrolytes in the proximity of an electrode by THz absorption spectroscopy**
S. R. Alfarano, Bochum/DE, C. Hoberg, Bochum/DE, I. Kolling, Bochum/DE, C. Y. Ma, Bochum/DE, K. Mauelshagen, Bochum/DE, T. Ockelmann, Bochum/DE, F. Sebastiani, Bochum/DE, P. Roy, Saint-Aubin/FR, G. Schwaab, Bochum/DE, M. Havenith, Bochum/DE

P 05.22 **Electrochemical Investigations on Cryogelated Superstructures**
D. Müller, Hannover/DE, A. Freytag, Hannover/DE, N. C. Bigall, Hannover/DE

P 05.23 **Electrodeposited Manganese Oxide on Superhydrophobic Nickel-Mesh for Application in Gas Diffusion Electrodes**
A. Bekisch, Hermsdorf/DE, K. Skadell, Hermsdorf/DE, M. Schulz, Hermsdorf/DE, M. Stelter, Hermsdorf/DE

P 05.24 **Surface Modified Multiwalled Carbon Nanotubes as Non-Precious Metal Catalyst for the Oxygen Reduction Reaction**
M. Kuebler, Darmstadt/DE, T. Jurzinsky, München/DE, S. Wagner, Darmstadt/DE, N. Weidler, Darmstadt/DE, W. D. Z. Wallace, Darmstadt/DE, U. I. Kramm, Darmstadt/DE

P 05.25 **Bunching and Immobilization of Ionic Liquids in Nanoporous Metal-Organic Framework**
A. B. Kanj, Karlsruhe/DE, R. Verma, Karlsruhe/DE, M. Liu, Karlsruhe/DE, J. Helfferich, Karlsruhe/DE, W. Wenzel, Karlsruhe/DE, L. Heinke, Karlsruhe/DE

## Reaction Kinetics and Dynamics

P 06.02 **Reaction Kinetics Studies of an Unsaturated Methyl Ester: Methyl Crotonate**
S. K. Vallabhuni, Braunschweig/DE, J. Dedhia, Braunschweig/DE, K. Moshammer, Braunschweig/DE, R. X. Fernandes, Braunschweig/DE

P 06.03 **Molecular dynamics of $Co(acac)_2(py)(N_3)$ from time-resolved spectroscopies on femtoseconds-to-minutes time scales**
T. Unruh, Bonn/DE, S. Straub, Bonn/DE, J. Lindner, Bonn/DE, P. Vöhringer, Bonn/DE

P 06.04 **Biodegradable Polymer Foams via Foamed Emulsions**
M. Dabrowski, Stuttgart/DE, S. Varytimiadou, Stuttgart/DE, C. Stubenrauch, Stuttgart/DE

P 06.05 **Dynamics and isomers in the proton transfer from $ArH^+$ to CO**
B. Bastian, Innsbruck/AT, E. Carrascosa, Melbourne/AU, A. Kaiser, Innsbruck/AT, J. Meyer, Innsbruck/AT, T. Michaelsen, Innsbruck/AT, G. Czakó, Szeged/HU, W. L. Hase, Texas/US, R. Wester, Innsbruck/AT

P 06.06 **In-situ characterization of nanoparticles in a microjet**
D. Bonatz, Hamburg/DE, F. Bourier, Hamburg/DE, A. Mews, Hamburg/DE

P 06.07 **Analysis and modelling of gold nanoparticle growth in toluene**
F. S. Bourier, Hamburg/DE, X. Tang, Hamburg/DE, D. Bonatz, Hamburg/DE, A. Mews, Hamburg/DE

P 06.08 **Time-resolved small angle neutron scattering investigation of the swelling kinectics of N-n-propylacrylamide based microgels**
O. Wrede, Bielefeld/DE, T. Sottmann, Stuttgart/DE, T. Hellweg, Bielefeld/DE

P 06.09 **Construction of a new electrospray ionization time of flight mass spectrometer (ESI-TOF-MS) for femtosecond laser experiments**
P. Krüger, Marburg/DE, K. - M. Weitzel, Marburg/DE

P 06.10 **Accelerated formation of substituted isoquinolines in confined micro-environments**
T. Neumann, Potsdam/DE, C. Prüfert, Potsdam/DE, D. Riebe, Potsdam/DE, T. Beitz, Potsdam/DE, H. - G. Löhmannsröben, Potsdam/DE

P 06.11 **A Kinetic and Theoretical Study of the Atmospheric Aqueous-Phase Reactions of OH Radicals with Methoxyphenolic Compounds**
L. He, Leipzig/DE, T. Schaefer, Leipzig/DE, T. Otto, Leipzig/DE, H. Herrmann, Leipzig/DE

P 06.12 **Rotational dependence of the proton-/ hydrogen-transfer reaction $HBr^+ + HBr \rightarrow H_2Br^+ + Br$**
S. Schmidt, Marburg/DE, D. Plamper, Marburg/DE, K. - M. Weitzel, Marburg/DE

P 06.13 **Solubility product mediated growth of tipped nanorods**
S. Monter, Konstanz/DE, K. Boldt, Konstanz/DE, F. Enders, Konstanz/DE

P 06.14 **Tristriazolotriazines: Mesomorphism and tangential-radial Isomerisation**
H. Detert, Mainz/DE, T. Rieth, Mainz/DE, N. Tober, Mainz/DE, M. Lehmann, Mainz/DE

P 06.15 **Experimental studies on the kinetics of the $CH_3O(CH_2O)_3CH_3$ + OH reaction**
A. Keller, Karlsruhe/DE, M. Olzmann, Karlsruhe/DE

P 06.16 **The Multifaceted Fluorescence Dynamics of Tropylium Compounds**
S. Wortmann, Bochum/DE, D. J. M. Lyons, Sydney/AU, B. Geissler, Bochum/DE, R. D. Crocker, Sydney/AU, T. V. Nguyen, Sydney/AU, P. Nuernberger, Bochum/DE

P 06.17 **Effect of Aqueous Two-Phase Systems on Enzymatic Reactions**
S. Banerjee, Dortmund/DE

## Thermodynamics

P 07.01 **In silico design of polymer nanocarriers for biomedical applications**
A. Erlebach, Jena/DE, I. Muljajew, Jena/DE, M. Dirauf, Jena/DE, C. Weber, Jena/DE, U. S. Schubert, Jena/DE, M. Sierka, Jena/DE

P 07.02 **Origin of the Fluorine Phase**
C. Peschel, Halle/DE, D. Sebastiani, Halle/DE

P 07.03 **Ab initio design of zero thermal expansion materials**
G. Belhadj Hassine, Jena/DE, A. Erlebach, Jena/DE, C. Thieme, Halle/DE, K. Thieme, Halle/DE, C. Rüssel, Jena/DE, M. Sierka, Jena/DE

P 07.04 **Influence of hydrocarbons on the bulk and surface structure of ionic liquids**
J. Mars, Mainz/DE, H. Weiss, Mainz/DE, V. Honkimäki, Grenoble/FR, B. Murphy, Kiel/DE, M. Bier, Stuttgart/DE, M. Mezger, Mainz/DE

P 07.05 **Thermodynamik mit Spaß – ein neues Lehrkonzept**
R. Rüffler, Hamburg/DE, G. Job, Hamburg/DE

## Theory and Data Science

P 08.01 **Maximum entropy methods (MEM) and Kramers-Kronig-relations (KK) for phase retrieval for CARS spectra**
R. Houhou, Jena/DE, T. Meyer, Jena/DE, P. Barman, Jena/DE, M. Schmitt, Jena/DE, J. Popp, Jena/DE, T. Bocklitz, Jena/DE

P 08.02 **Theoretical description of H atom scattering from tungsten surfaces.**
N. Hertl, Göttingen/DE, A. Kandratsenka, Göttingen/DE, A. M. Wodtke, Göttingen/DE

P 08.03 **The Electronic Structure of $LaCoO_3$ and $BaCoO_3$ Perovskites**
G. Zvejnieks, Riga/LV, D. Zavickis, Riga/LV, D. Gryaznov, Riga/LV, E. A. Kotomin, Riga/LV

P 08.04 **Prediction of activity coefficients by combining molecular dynamics simulations with machine learning**
J. Gebhardt, Stuttgart/DE, S. Riniker, Zürich/CH, N. Hansen, Stuttgart/DE

P 08.05 **The double-faced nature of hydrogen bonding in hydroxyl-functionalized ionic liquids shown by neutron diffraction and molecular dynamics simulations**
T. Niemann, Rostock/DE, J. Neumann, Rostock/DE, P. Stange, Rostock/DE, S. Gärtner, Didcot/GB, T. Young, Didcot/GB, D. Paschek, Rostock/DE, R. Atkin, Perth/AU, R. Ludwig, Rostock/DE

P 08.06 **Computing NMR properties from a combination of molecular dynamics simulations and ab initio calculations**
J. Busch, Rostock/DE, J. Neumann, Rostock/DE, D. Paschek, Rostock/DE, R. Ludwig, Rostock/DE

P 08.07 **Spectroscopic and thermodynamic properties of ethanol by means of the quantum cluster equilibrium theory**
S. Fritsch, Rostock/DE, W. S. K. Polet, Rostock/DE, R. Ludwig, Rostock/DE

P 08.08 **Reactivity and spectroscopy of o-benzyne derivatives**
M. Deutsch, Würzburg/DE, D. Kaiser, Würzburg/DE, J. Maier, Würzburg/DE, E. Reusch, Würzburg/DE, T. B. Marder, Würzburg/DE, I. Fischer, Würzburg/DE, B. Engels, Würzburg/DE

P 08.09 **Calculating $Tb_3^+$-doped $CeO_2$ from first principles**
A. Cesnokovs, Riga/LV, D. Gryaznov, Riga/LV, E. A. Kotomin, Stuttgart/DE

P 08.10 **Ab initio interatomic potentials for atomistic simulations of multicomponent glasses**
C. Bückmann, Jena/DE, M. Sierka, Jena/DE, L. Wondraczek, Jena/DE

P 08.11 **Implementation of QM/MM and Three-layer-Methods**
S. Sauer, Würzburg/DE, B. Engels, Würzburg/DE

P 08.12 **Molecular association in the chemical and the physical picture: pure fluids, binary mixtures, and ionic solutions**
W. Schröer, Bremen/DE

P 08.13 **Bridge of Light and Electron Microscopy**
Fengjiao Ma, Jena/DE, R Heintzmann, Jena/DE

P 08.14 **First principles study of structural and piezoelectric properties of $SrTiO_3$/$BaTiO_3$ heterostructures**
G. Zvejnieks, Riga/LV, L. Rusevich, Riga/LV, D. Gryaznov, Riga/LV, E. A. Kotomin, Riga/LV

## Transport and Storage

P 09.01 **Transport Properties of Porphyrin- and Pyrene-based MOFs**
D. Zink, Gießen/DE, C. Koschnick, München/DE, R. Stäglich, Bayreuth/DE, B. Lotsch, München/DE, J. Senker, Bayreuth/DE, M. T. Elm, Gießen/DE

P 09.02 **Setup for the remote access to electrical conductivity by charge attachment from plasmas at different pressures**
J. Wiemer, Marburg/DE, K.-M. Weitzel, Marburg/DE

P 09.03 **Alkali ion transport in perowskites**
J. Bernzen, Marburg/DE, K. - M. Weitzel, Marburg/DE

P 09.04 **New insight into the mechanism of electro-poling of ceramics**
K. Rein, Marburg/DE, M. Schäfer, Marburg/DE, K. - M. Weitzel, Marburg/DE

P 09.05 **Site energy distribution in a Na-Rb-borate glass**
M. Schäfer, Marburg/DE, D. Budina, Marburg/DE, K. - M. Weitzel, Marburg/DE

P 09.06 **Amphiphilic Polyoxazolines with amorphous and semicrystalline micellar cores to capture hydrophobic cholesterol**
E. A. Schaefer, Konstanz/DE, P. Keckeis, Konstanz/DE, H. Cölfen, Konstanz/DE

P 09.07 **The effect of crystal symmetry on oxide-ion transport in a perovskite oxide: a case study of $CaTiO_3$**
E. Robens, Aachen/DE, J. Kaub, Aachen/DE, J. P. Parras, Aachen/DE, R. A. De Souza, Aachen/DE

## Spectroscopy

P 10.01 **Non-ideal behaviour of binary dimethyl sulfoxide mixtures probed by polarization-resolved Raman spectroscopy**
C. C. Rullich, Bremen/DE, J. Kiefer, Bremen/DE

P 10.02 **Beer's law: Why absorbance depends (almost) linearly on concentration and why the attenuation constant is inversely proportional to the index of refraction**
T. G. Mayerhöfer, Jena/DE, J. Popp, Jena/DE

P 10.03 **Dispersion and the Lorentz-profile: How to extract oscillator parameters and the index of refraction function from absorbance spectra**
T. G. Mayerhöfer, Jena/DE, J. Popp, Jena/DE

P 10.04 **Performing generalized dispersion analysis of single crystals with a priori unknown symmetry and orientation**
S. Höfer, Jena/DE, J. Popp, Jena/DE, T. G. Mayerhöfer, Jena/DE

P 10.05 **The Photophysics of Tolane – A ps time-resolved Photoelectron Imaging Study**
M. Flock, Würzburg/DE, L. Bosse, Würzburg/DE, I. Fischer, Würzburg/DE

P 10.06 **Molecular Functionalization of Carbon Nitride Polymers for Light-driven Water Splitting**
C. Li, Jena/DE, B. Dietzek, Jena/DE

P 10.07 **Time-resolved spectroelectrochemistry with a flow-electrolysis cell**
M. Voelckel, Würzburg/DE, P. Kunkel, Würzburg/DE, K. Eckstein, Würzburg/DE, J. Heitmüller, Würzburg/DE, T. Brixner, Würzburg/DE, T. Hertel, Würzburg/DE

P 10.08 **Using Ketones as Intermolecular Energy Balances for Dispersion-tuned Alcohols**
C. Zimmermann, Göttingen/DE, M. A. Suhm, Göttingen/DE, H. C. Gottschalk, Göttingen/DE

P 10.09 **Dynamic yet Defined: Extremely Soft, Self-Assembled Structures in Solution**
J. Eisermann, Halle (Saale)/DE, D. Hinderberger, Halle (Saale)/DE

P 10.10 **Reorientation and Metalation of Carboxyl-Functionalized Tetraphenylporphyrins on Atomically-Defined Cobalt Oxide Surfaces**
T. Wähler, Erlangen/DE, R. Schuster, Erlangen/DE, J. Libuda, Erlangen/DE

P 10.11 **A deep dive into the excited state properties of an osmium-tetrathiophene complex for possible future use as a photodrug**
K. R. A. Schneider, Jena/DE, B. Dietzek, Jena/DE

P 10.12 **Resonance Raman study of tetracycline and its degradation product**
C. Domes, Jena/DE, J. Popp, Jena/DE, T. Frosch, Jena/DE

P 10.13 **Investigation on promising novel antimalarials by Deep-UV Raman spectroscopy**
R. Domes, Jena/DE, C. Domes, Jena/DE, J. Popp, Jena/DE, T. Frosch, Jena/DE

P 10.14 **The attempt of using GaAs (Cs:O) and GaN (Cs) as photocathodes in SRF photoinjector**
J. Schaber, Dresden/DE, R. Xiang, Dresden/DE, P. Murcek, Dresden/DE, A. Arnold, Dresden/DE, J. Teichert, Dresden/DE

P 10.15 **Raman ChemLighter: A Fiber-optic probe-based Raman imaging approach in combination with augmented reality and mixed reality**
W. Yang, Jena/DE, Jürgen Popp, Jena/DE, Iwan W. Schie, Jena/DE

P 10.16 **Raman spectroscopy for assessment of bladder cancer with preliminary data of clinical specimens**
F. Al Salti, Jena/DE, Rodrigo Suarez Ibarrola, Freiburg/DE, Philippe-Fabian Müller, Freiburg/DE, Christoph Krafft, Jena/DE, Jürgen Popp, Jena/DE

P 10.17 **Structure Determination of a new Molecular White-Light Source**
B. D. Klee, Marburg/DE, W. - C. Pilgrim, Marburg/DE

P 10.18 **Stern-Gerlach Experiments on magnetic impurities: High- and low-temperature behavior and its consequences for spin dynamics in molecular beams**
T. M. Fuchs, Darmstadt/DE, R. Schäfer, Darmstadt/DE

P 10.19 **State-dependent fragmentation of protonated uracil and uridine**
M. Pitzer, Rehovot/IL, C. Ozga, Kassel/DE, C. Küstner-Wetekam, Kassel/DE, P. Reiß, Kassel/DE, A. Giuliani, Gif-sur-Yvette/FR, L. Nahon, Gif-sur-Yvette/FR

P 10.20 **Broadband Ultrafast Transient Absorption Spectroscopy of Triplet Phenylpentadiynylidene and Diphenylpropynylidene**
L. Ress, Würzburg/DE, E. Reusch, Würzburg/DE, H. - C. Schmitt, Würzburg/DE, I. Fischer, Würzburg/DE, T. Brixner, Würzburg/DE

P 10.21 **UV-Raman spectroscopy for detection of fungal spores**
O. Zukovskaja, Jena/DE, S. Kloß, Jena/DE, M. Blango, Jena/DE, O. Ryabchykov, Jena/DE, O. Kniemeyer, Jena/DE, A. A. Brakhage, Jena/DE, T. W. Bocklitz, Jena/DE, D. Cialla-May, Jena/DE, K. Weber, Jena/DE, J. Popp, Jena/DE

P 10.22 **Chirality Recognition and Chirality Induction in Hydrogen-Bonded Complexes – An Undergraduate Spectroscopy Study**
J. Heitland, Göttingen/DE, L. Hasecke, Göttingen/DE, M. Niessner, Göttingen/DE, J. B. Meyer, Göttingen/DE, R. Medel, Göttingen/DE, C. Stelbrink, Göttingen/DE, M. Lange, Göttingen/DE, R. A. Mata, Göttingen/DE, M. A. Suhm, Göttingen/DE

P 10.23 **Attractive cation-cation interaction in hydroxyl-functionalized ionic liquids: Structures in bulk phase and gas phase**
A. Strate, Rostock/DE, T. Niemann, Rostock/DE, R. Ludwig, Rostock/DE, H. J. Zeng, New Haven/US, F. S. Menges, New Haven/US, M. A. Johnson, New Haven/US

P 10.24 **Mechanistic study of Fluorescence Upconversion by Triplet-Triplet Annihilation in Poly(methacrylate)-Terpolymers**
M. Sittig, Jena/DE, B. Schmidt, Jena/DE, H. Görls, Jena/DE, T. Bocklitz, Jena/DE, S. Zechel, Jena/DE, M. Wächtler, Jena/DE, M. D. Hager, Jena/DE, B. Dietzek, Jena/DE

P 10.25 **IR/UV Ion Dip Spectroscopy of Xylyl Radicals, Xylylenes and their Isomerization Products**
F. Hirsch, Würzburg/DE, I. Fischer, Würzburg/DE, S. Bakels, Nijmegen/NL, A. M. Rijs, Nijmegen/NL

P 10.26 **Charge-Separated States Stabilization in Immobilized $H_2$-Evolving Ru-Pt Photocatalyst by Electric Field Modulation**
R. A. Wahyuono, Jena/DE, M. Braumüller, Ulm/DE, J. Dellith, Jena/DE, A. Dellith, Jena/DE, S. Rau, Ulm/DE, B. Dietzek, Jena/DE

P 10.27 **Electronic Interactions in Molecular doped Conducting Polymers Probed by Two-dimentional Electronic Spectroscopy**
V. Tiwari, Hamburg/DE, A. Jha, Hamburg/DE, H. - G. Duan, Hamburg/DE, I. E. Jacobs, Cambridge/GB, M. Thorwart, Hamburg/DE, R. J. D. Miller, Hamburg/DE

P 10.28 **Exploring the interior of mixed crystals consisting of quantum dots encapsulated into ionic salt matrices**
F. Eichler, Dresden/DE, N. Gaponik, Dresden/DE, A. Eychmüller, Dresden/DE

P 10.29 **Ion-specific effects on the electrical double layer at the silica-water interface studied by vibrational SFG spectroscopy**
P. Ober, Mainz/DE, J. Schaefer, Mainz/DE, L. Praedel, Mainz/DE, J. Hunger, Mainz/DE, E. H. G. Backus, Vienna/AT, M. Bonn, Mainz/DE

P 10.30 **FLIm guided Raman Imaging for Detecting Bovine Pericardium Cross-links and Calcification**
T. A. Shaik, Jena/DE, X. Zhou, Davis/US, A. K. Haudenschild, Davis/US, A. Alfonso-Garcia, Davis/US, C. Krafft, Jena/DE, J. Popp, Jena/DE, L. Marcu, Davis/US

P 10.31 **Towards parity violation and tunneling in chiral molecules: An experiment in the infrared range using a pulsed slit jet expansion.**
G. Wichmann, Zürich/CH, E. Milogyadov, Zürich/CH, G. Seyfang, Zürich/CH, M. Quack, Zürich/CH

P 10.32 **Tuning Interfacial Water Structure with Mica**
M. Deiseroth, Mainz/DE, M. Bonn, Mainz/DE, E. H. G. Backus, Mainz/DE

P 10.33 **Third Harmonic Generation in Liquid Core and Microstructured Fibers with Ultra Short Laser Pulses**
K. Schaarschmidt, Jena/DE, C. Chemnitz, Jena/DE, R. Sebak, Jena/DE, M. A. Schmidt, Jena/DE

P 10.34 **Synthesis and Characterization of Elongated Type-II ZnSe/CdS Core-Shell Particles**
J. Rebmann, Hamburg/DE, H. - W. Werners, Hamburg/DE, S. - H. Lohmann, Hamburg/DE, C. Strelow, Hamburg/DE, T. Kipp, Hamburg/DE, A. Mews, Hamburg/DE

P 10.35 **Reactivity and Spectroscopy of $Co(CO_2)(H_2O)_n$-Anions**
E. Barwa, Innsbruck/AT, T. Pascher, Innsbruck/AT, M. Ončák, Innsbruck/AT, C. van der Linde, Innsbruck/AT, M. K. Beyer, Innsbruck/AT

P 10.36 **Cooperative effects in Ir, Pt and Pd containing bimetallic complexes**
T. Wall, Kaiserslautern/DE, M. Leist, Kaiserslautern/DE, W. R. Thiel, Kaiserslautern/DE, M. Gerhards, Kaiserslautern/DE

P 10.37 **Dispersion controlled docking preference: analyzing isolated dibenzofuran–solvent complexes with IR/UV spectroscopy**
D. Maué, Kaiserslautern/DE, D. Bernhard, Kaiserslautern/DE, M. Fatima, Hamburg/DE, A. Poblotzki, Göttingen/DE, M. A. Suhm, Göttingen/DE, M. Schnell, Kiel/DE, M. Gerhards, Kaiserslautern/DE

P 10.38 **Controlling the Balance of Contact and Solvent-Separated Ion Pairs in Mixtures of Protic Ionic Liquids and Molecular Solvents**
P. Stange, Rostock/DE, R. Ludwig, Rostock/DE

P 10.39 **Laser Induced Electric Fields across $Si/SiO_2$ Interfaces: Front vs. Rear Surfaces of Si Membranes**
H. Stafast, Jena/DE, W. I. Ndebeka, Stellenbosch/ZA, P. H. Neethling, Stellenbosch/ZA, E. G. Rohwer, Steööenbosch/ZA, C. M. Steenkamp, Stellenbosch/ZA

P 10.40 **Size-selective investigation on the onset of crystallization of sodium doped water clusters**
D. Becker, Göttingen/DE, F. Zurheide, Göttingen/DE, C. W. Dierking, Göttingen/DE, T. Zeuch, Göttingen/DE

P 10.41 **Characterization of proton reduction catalysts with spatial and temporal resolution**
L. Eiffert, Jena/DE, M. Richard-Lacroix, Jena/DE, V. Deckert, Jena/DE, B. Dietzek, Jena/DE

P 10.42 **Complexation of lanthanide ions with tridentate nitrogen donor ligands studied by time-resolved laser spectroscopy**
S. Eidner, Potsdam/DE, P. Sikora, Mainz/DE, K. Brennenstuhl, Potsdam/DE, E. Ertürk, Potsdam/DE, M. Dorn, Mainz/DE, K. Heinze, Mainz/DE, T. Reich, Mainz/DE, M. U. Kumke, Potsdam/DE

P 10.43 **Fiber based Raman characterization of Urinary Bladder cancer tissue: A reproducibility and model transfer study**
E. Cordero, Jena/DE, I. W. Schie, Jena/DE, J. Popp, Jena/DE, F. Knorr, Jena/DE, I. Latka, Jena/DE, F. Windirsch, Jena/DE

P 10.44 **Towards high resolution vibrational spectroscopy of metal ion water clusters**
F. Krammer, Innsbruck/AT, S. Spieler, Innsbruck/AT, K. Geistlinger, Innsbruck/AT, J. Meyer, Innsbruck/AT, R. Wester, Innsbruck/AT

P 10.45 **Photoinduced Modifications of CdSe Nanowires in Flow Channels**
R. Kusterer, Hamburg/DE, P. Harder, Hamburg/DE, T. Kipp, Hamburg/DE, A. Mews, Hamburg/DE

P 10.46 **Stratigraphy and laser beam characterisation for laser-induced breakdown spectroscopy analyses**
L. Brandfellner, Vienna/AT, M. Buessler, Vienna/AT, U. Pacher, Vienna/AT, P. Plata, Vienna/AT, A. Kovàcs, Vienna/AT, A. Feldner, Vienna/AT, M. J. J. Weimerskirch, Vienna/AT, T.O. Nagy, Vienna/AT, W. Kautek, Vienna/AT

P 10.47 **Formate adducts of coinage metal phosphine complexes in isolation**
B. Kwasigroch, Kaiserslautern/DE, S. V. Kruppa, Kaiserslautern/DE, E. Bischoff, Kaiserslautern/DE, C. Riehn, Kaiserslautern/DE, G. Niedner-Schatteburg, Kaiserslautern/DE

P 10.48 **X-Ray magnetic circular dichroic (XMCD) studies of spinfrustated trinuclear oxo bridged iron complexes in the gas phase**
M. Lembach, Kaiserslautern/DE, J. Lang, Kaiserslautern/DE, M. Luczak, Kaiserslautern/DE, Y. Mees, Kaiserslautern/DE, V. Zamudio-Bayer, Berlin/DE, M. Timm, Berlin/DE, C. Bülow, Berlin/DE, J. T. Lau, Berlin/DE, G. Niedner-Schatteburg, Kaiserslautern/DE

P 10.49 **Chemical absorption of $CO_2$: Investigations on molecular structure-activity relationships for primary and secondary amine solutions**
R. Golnak, Berlin/DE, H. Ali, Berlin/DE, D. Cao, Berlin/DE, J. Xiao, Berlin/DE

P 10.50 **Cryo kinetics and IR spectroscopy of $N_2$ and $H_2$ adsorbed to size selected Rhodium and Tantalum clusters**
M. P. Klein, Kaiserslautern/DE, A. Steiner, Kaiserslautern/DE, A. A. Ehrhard, Kaiserslautern/DE, G. Niedner-Schatteburg, Kaiserslautern/DE

P 10.51 **Optical Properties of Segregates in Functionalized Earth Alkaline Oxide Nanoparticle Powders**
H. Razouq, Salzburg/AT, T. Schwab, Salzburg/AT, G. Zickler, Salzburg/AT, O. Diwald, Salzburg/AT

P 10.52 **Energy Transfer within the Hydrogen Bonding Network of Water Resolved by Nonlinear THz Spectroscopy**
M. Sajadi, Berlin/DE, M. Wolf, Berlin/DE

P 10.53 **Pentadiynylidene and its Methyl-Substituted Derivates: Threshold Photoelectron Spectroscopy of R1-C5-R2 Triplet Carbon Chains**
E. Reusch, Würzburg/DE, D. Kaiser, Würzburg/DE, D. Schleier, Würzburg/DE, T. Hermann, Würzburg/DE, I. Fischer, Würzburg/DE, B. Engels, Würzburg/DE, P. Hemberger, Würzburg/DE

P 10.54 **High-resolution imaging of the drug penetration into human skin probed with infrared radiation based spectromicroscopy methods**
P. Patoka, Berlin/DE, G. Germer, Berlin/DE, G. Ulrich, Berlin/DE, F. Rancan, Berlin/DE, A. Vogt, Berlin/DE, U. Blume-Peytavi, Berlin/DE, P. Schrade, Berlin/DE, S. Bachmann, Berlin/DE, B. Kästner, Berlin/DE, G. Ulm, Berlin/DE, E. Rühl, Berlin/DE

P 10.55 **Strong temperature and size effects in iron-nitrogen interactions**
A. Steiner, Kaiserslautern/DE, M. P. Klein, Kaiserslautern/DE, S. Dillinger, Kaiserslautern/DE, J. Mohrbach, Kaiserslautern/DE, P. B. Armentrout, Salt Lake City/US, G. Niedner-Schatteburg, Kaiserslautern/DE

P 10.56 **Cryogenic Ion Trap Vibrational Spectroscopy of $[(Al_2O_3)_{1-5}(FeO)]^+$ Clusters: The Influence of Fe-Doping on Structure and Other Properties**
S. Debnath, Leipzig/DE, M. Jorewitz, Leipzig/DE, F. Bischoff, Berlin/DE, F. Müller, Berlin/DE, J. Sauer, Berlin/DE, K. R. Asmis, Berlin/DE

P 10.57 **The Effect of Methylation of Furan on the Preferred O-H Interaction Sites in Furan Methanol Complexes**
D. A. Obenchain, Hamburg/DE, M. Fatima, Hamburg/DE, C. Pérez, Hamburg/DE, M. Schnell, Hamburg/DE

P 10.58 **Photodynamics of lanthanide complexes in gas phase and solution**
C. Riehn, Kaiserslautern/DE, F. Liedy, Kaiserslautern/DE, F. Bäppler, Kaiserslautern/DE, Y. Nosenko, Kaiserslautern/DE, D. Imanbaew, Kaiserslautern/DE, R. Diller, Kaiserslautern/DE, M. M. Kappes, Karlsruhe/DE, P. W. Roesky, Karlsruhe/DE, D. Schooss, Karlsruhe/DE

P 10.59 **Raman investigation of transdermal processes applying Liposomal carriers**
A. Mühlig, Jena/DE, L. Rahnfeld, Jena/DE, C. Matthäus, Jena/DE, P. Luciani, Jena/DE, J. Popp, Jena/DE

P 10.60 **Fundamental SERS Investigation of Pyridine Derivates – Interaction with Silver Nanoparticles with respect to Functional Groups and Substitution Position**
A. Mühlig, Jena/DE, D. Cialla-May, Jena/DE, J. Popp, Jena/DE

P 10.61 **Intermolecular Probe for Ionic Structural Deformation of Liquid Water**
V. Balos, Berlin/DE, M. Wolf, Berlin/DE, M. Sajadi, Berlin/DE

P 10.62 **Proton Transfer Reaction in an Aprotic Environment**
A. Grandjean, Saarbrücken/DE, D. Maus, Saarbrücken/DE, J. L. Pérez Lustres, Heidelberg/DE, M. Motzkus, Heidelberg/DE, G. Jung, Saarbrücken/DE

P 10.63 **Equilibrium Structures of Methyl Methacrylate and Methacrylic Acid by Means of Microwave Spectroscopy with sub-pm Accuracy**
S. Herbers, Hannover/DE, P. Kraus, Hannover/DE, J.-U. Grabow, Hannover/DE

P 10.64 **The rotational spectrum of 3-methylcyclopentane-1,2-dione**
J. Wang, Hannover/DE, S. Herbers, Hannover/DE, J.-U. Grabow, Hannover/DE, Q. Gou, Chongqing/CN

P 10.65 **Hyperspectral SIM imaging of the human retina**
S. Unger, Jena/DE, A. Valverde, Jena/DE, W. Müller, Jena/DE, R. Heintzmann, Jena/DE

P 10.66 **High-Resolution Gigahertz and Terahertz Spectroscopy of the isotopically chiral molecule trans-2,3-dideutero-oxirane (c-CHD-CHDO)**
K. Keppler, Zürich/CH, Z. Chen, Lanzhou/CN, S. Albert, Zürich/CH, M. Quack, Zürich/CH, V. Schurig, Tübingen/DE, O. Trapp, München/DE

P 10.67 **Direct observation of a charge transfer-complex in homoleptic zinc compounds on an ultrafast timescale in a non-polar solvent**
J. Leier, Karlsruhe/DE, D. Tungulin, Karlsruhe/DE, C. Bizzarri, Karlsruhe/DE, A.-N. Unterreiner, Karlsruhe/DE

P 10.68 **Identification and dynamic monitoring of intermediates of multielectron reaction pathways**
L. Zedler, Jena/DE, M. Ziems, Jena/DE, A. K. Mengele, Ulm/DE, Y. Zhang, Jena/DE, M. Wächtler, Jena/DE, S. Gräfe, Jena/DE, T. Pascher, Lund/SE, S. Rau, Ulm/DE, S. Kupfer, Jena/DE, B. Dietzek, Jena/DE

P 10.69 **Investigating Proton-Transfer by nonlinear THz-Spectroscopy**
T. Ockelmann, Bochum/DE, C. Hoberg, Bochum/DE, M. Havenith, Bochum/DE

P 10.70 **Hypercooled water**
T. Buttersack, Prag/DE, V. Weiss, Münster/DE, S. Bauerecker, Braunschweig/DE

P 10.71 **X-Ray Photoelectron Spectroscopy of Solvated Electrons in Liquid Ammonia Microjets**
T. Buttersack, Prague/CZ, O. Marsalek, Prague/CZ, P. Jungwirth, Prague/CZ, S. Bradforth, Los Angeles/US, P. Mason, Prague/CZ, R. McMullen, Los Angeles/US, T. Martinek, Prague/CZ, K. Brezina, Prague/CZ, D. Hein, Berlin/DE, H. Ali, Berlin/DE, C. Kolbeck, Berlin/DE, C. Schewe, Berlin/DE, B. Winter, Berlin/DE, R. Seidel, Berlin/DE

P 10.72 **First line strength analysis of $^{34}SO_2$ in the v2 region: Isotopic relations for the dipole moment parameters**
C. Sydow, Braunschweig/DE, C. Maul, Braunschweig/DE, S. Bauerecker, Braunschweig/DE, M. Quack, Zürich/CH, G. Mellau, Giessen/DE, E . Bekhtereva, Tomsk/RU, O. Gromova, Tomsk/RU, A. Ziatkova, Tomsk/RU, O. Ulenikov, Tomsk/RU

## ORAL SESSIONS / PRESENTATION UPLOAD

For contributed oral presentations, computers with the following software are provided: Microsoft Office 2016 (16.10), Adobe Reader DC (18.11).

**Upload your presentation no later than during the (coffee) break preceding your session to the computers available in the lecture halls.**

You do not need to bring your own laptop nor an USB-stick to the session since neither of them might be connected.

**Friday, 31 May 2019**

12:25 p.m. – 01:25 p.m. **WOMEN'S NETWORKING LUNCH**

Friedrich-Schiller-Universität Jena — Rosensäle SR 103

Registration is required (during the registration process for participating at the conference).

06:00 p.m. – 09:00 p.m. **POSTER SESSION & SNACKS AND DRINKS**

Friedrich-Schiller-Universität Jena, Ernst-Abbe-Campus, Carl-Zeiß-Straße 3 — Foyer

The Poster Session allows for in-depth exchange of latest research achievements and developments in an informal atmosphere while enjoying food and drinks with friends and colleagues. Admission is free

09:00 p.m. **yPC – YOUNG PHYSICAL CHEMISTS NETWORKING EVENING**

Sponsored by Chemical Physics Letters — Theatercafé

Following the poster evening yPC invites all participants to the Young Physical Chemists Networking Evening. We will meet at Theatercafé (Schillergäßchen 1) starting at 09:00 p.m. to end the day pleasantly with some drinks, music, and the chance to connect to other young and like-minded researchers. The evening will allow developing new and maintaining old friendships.

Chemical Physics Letters generously sponsors two drinks per person (conference registration required).

## THE EUCHEMS DIVISION OF PHYSICAL CHEMISTRY: TASKS AND AIMS

The EuChemS Division of Physical Chemistry coordinates European activities in the field of physical chemistry with a view to scientific exchange that includes conferences and workshops as well as to research with a focus on interdisciplinary work and education.

The tasks of the EuChemS Division of Physical Chemistry are:

(1) Inititation and coordination of intensive communication and collaboration between the physical chemistry sections of the respective European chemical societies.

(2) Focus on state-of-the-art R&D topics that can best be handled by physical chemistry, such as energy conversion and storage, resource-saving chemical processes and manufacturing strategies.

(3) Coordination of the transdisciplinary research discussion, in which physical chemistry can play a central role.

(4) Supporting quality assurance in physical chemistry education and training at European universities.

(5) Scientific exchange, in particular through conferences and workshops in low cost locations, e.g. EuChemS Physical Chemistry Conferences (ECPC, biennial).

(6) Particular attention is paid to promoting the career of young scientists.

(7) Bringing together stake holders and decision-makers from science and industry.

Homepage: www.euchems.eu/divisions/physical-chemistry-2

EuChemS
European Chemical Society
Division of Physical Chemistry

# SOCIAL PROGRAMME

## Thursday, 30 May 2019

07:30 p.m. – 10:30 p.m. **Welcome Reception**

Goethe Galerie Jena, Goethestraße 3

**Price per person: 17,85 €** (incl. 19% VAT) normal charge
**Price per person: 11,19 €** (incl. 19% VAT) students

## Friday, 31 May 2019

12:25 p.m. – 01:25 p.m. **Women's Networking Lunch**

The Bunsen Society invites all women to this fifth Women's Networking Lunch at the Bunsentagung 2019.

KEYNOTE SPEAKER
**Dr. Jannika Lauth**

**Price per person: 12,00 €** (incl. 19% VAT) nominal charge

The number of participants is limited to 50.

Join us for a lunch and get to know other successful women in our scientific community. This is a unique networking opportunity. The Women´s Networking Lunch enables female scientists, talented and eager students as well as company representatives to interact in a relaxing environment. This Lunch allows attendees to expand their professional network, to collaborate with peers, to share their personal and business experiences and to exchange opinions in an informal setting.

We truly look forward to welcome you at the Women´s Networking Lunch and ask you to register for the event jointly with your conference registration.

The organisers, Yvonne Joseph & Melanie Schnell

09:45 a.m. – 04:00 p.m. **Social programme only for Accompanying Persons**

**Entry fees are not included in registration fee for the Bunsentagung.**

| | |
|---|---|
| 09:45 a.m. | Meeting point in front of the Phyletic Museum |
| 10:00 a.m. | Guided tour through the museum by Prof. Martin S. Fischer |
| 11:30 a.m. | Tour through the Botanical Garden with Abbé monument |
| 12:30 p.m. | Lunch at the restaurant Scala |
| 02:00 p.m. | Guided tour through the Optisches Museum Jena by Prof. Timo Mappes |
| 04:00 p.m. | Coffee and drinks together |

For registration please contact Birgitta Kappes (birgitta.kappes@kit.edu)

## Saturday, 1 June 2019

12:25 p.m. – 01:25 p.m. **yPC-MITGLIEDERVERSAMMLUNG**

For all members of the Bunsen Society below 40 years of age and without a professorship.

## REGISTRATION FEES[1)]

| | |
|---|---|
| Personal Members of the German Bunsen Society | 260 € |
| Non-Members | 335 € |
| Students[2)] | 50 € |
| Students Non-member[2)] | 100 € |
| Accompanying Person[3)] | 65 € |

**Late registrations after 28 February 2019 are subject to an additional fee of 25 €** (except for accompanying person).

1) No VAT requested according to § 4.22 USTG
2) Proof of status required (valid student ID or confirmation by the supervising professor).
3) Only participation to the Opening Ceremony, Opening Lecture and Welcome Dinner on 30 May 2019 and the Poster Session and Snacks & Drinks on 31 May 2019 are included, no admission to the scientific lecture (incl. 19% VAT).

The conference ticket includes an electronic book of abstracts to be downloaded in advance (a printed version can be ordered optionally with your registration for an additional fee of 10 €), the list of participants, meals and beverages during the poster session as well as the coffee breaks.

**Lunches are not included in the registration fee.**

## REGISTRATION

Please register online at **www.bunsentagung.de**.

Registration is open, subject to capacity of the lecture rooms, up to the beginning of the conference. Publication deadline of the list of participants is **22 April 2019**. It is not guaranteed that attendees registering after the deadline will appear in the list of participants.

## PAYMENT

If fees are paid in advance, but after **23 April 2019** we kindly ask participants to show proof of payment when claiming their tickets and conference material at the conference office. Credit cards (Amex, Mastercard, VISA) and direct debit will be accepted.

## CANCELLATION

Cancellations received in writing on or before **5 April 2019** will be refunded less a 25,- Euro administration fee. After that date the full amount of the invoice is owed. Requests for refund will not be accepted; however, registration may be transferred to another member of your organisation. In this case, please send a note to GDCh, Event Team.

If the conference is cancelled beforehand for unforeseable reasons, fees paid will be refunded in full. Further recourse is excluded.

## CONFERENCE LANGUAGES

The official languages of the conference are English and German. The opening, award and funding sessions will be in German only. Authors are expected to give their presentation (oral or poster) in the language used in the title published in the conference programme.

**PLEASE NOTE:** Simultaneous translation will not be provided.

## CHILD CARE

The Bunsentagung offers the opportunity for child care service to parents of small children on Friday 31 May 2019 and Saturday 1 June 2019. Interested parents are asked to register and complete the requested information within their online registration.

## INTERNET SERVICE

Free internet access will be provided via the ‘eduroam’ service (https://www.eduroam.org) for all participants during the conference.

## ACCOMMODATION

Call-in Allotment:

**Maxx Hotel Jena**
Stauffenbergstr. 59
07747 Jena

Phone: +49 3641 3000
E-mail: reservations@maxx-jena.steigenberger.de
Internet: www.steigenberger.com/hotels/alle-hotels/deutschland/jena/maxx-hotel-jena
Keyword: "Bunsentagung 2019"

Single room: 75 € / Double room: 95 € per night including breakfast

Reservation deadline: 2 May 2019

**Hotel ibis Jena City**
Teichgraben 1
07743 Jena

Phone: +49 3641 8130
E-mail: H2207@accor.com
Internet: www.accorhotels.com/de/hotel-2207-ibis-jena-city/index.shtml
Keyword: "Bunsentagung 2019"

Single room: 75 € / Double room: 86 € per night including breakfast

Reservation deadline: 30 April 2019

**Best Western Hotel Jena**
Rudolstädter Str. 82
07745 Jena

Phone: +49 3641 661023
E-mail: info@hotel-jena.bestwestern.de
Internet: www.bestwesternjena.de
Keyword: "Bunsentagung 2019"

Single room: 75 € / Double room: 95 € per night incl. breakfast and parking spot

Reservation deadline: 30 April 2019

**JEMBO Park Jena**
Rudolstädter Str. 93
07745 Jena

Phone: +49 3641 6850
E-mail: info@jembo.de
Internet: www.jembo.de
Keyword: "Bunsentagung 2019"

Single room: 65 € / Double room: 85 € per night incl. breakfast and parking spot

Reservation deadline: 29 April 2019

Further hotels are available in walking distance:
Zur Noll, Hotel Eulenstein, Hotel Vielharmonie, Hotel Schwarzer Bär, Hotel am Markt, Hotel Scala

## VENUE

(Map on page 101)

**Opening Session:** Friedrich Schiller University Jena, Campus Ernst-Abbe-Platz (Carl-Zeiß-Straße 3), Hörsaal 1
**Conference office:** Friedrich Schiller University Jena, Campus Ernst-Abbe-Platz (Carl-Zeiß-Straße 3), Foyer
**Seminar Wiley-VCH**

Friedrich-Schiller-Universität Jena
Campus Carl-Zeiss-Platz
07743 Jena/DE

**Bunsen-Meetings, eDu-Forum, yPC-Forum, yPC-Mitgliederversammlung, Women's Networking Lunch:**

Friedrich Schiller University Jena, Campus Erst-Abbe-Platz (Carl-Zeiß-Straße 3)

## HOW TO REACH THE VENUE

(Map on page 101)

On the conference **website www.bunsentagung.de**, under the menu "Venue and arrival", you will find a link to the route description to the Friedrich-Schiller-Universität Jena (www.uni-jena.de).

**More and regularly updated information on the conference is available at**
**www.bunsentagung.de**

## POSTER SESSION, POSTER DINNER AND POSTER AWARDS

**Friday, 31 May 2019** **06:00 p.m. – 09:00 p.m.**

There will be a dedicated "Poster Evening" on Friday, 31 May 2019 from 06:00 p.m. to 09:00 p.m. The session will be divided into even poster numbers (from 06:00 p.m. to 07:25 p.m.) and odd poster numbers (from 07:35 p.m. to 09:00 p.m.). **All authors are expected to be present at their own poster during the dedicated time slots for discussion.** Drinks and finger food will be available during the poster session (included in the registration fee, advance online registration requested).

The standard size for all posters is 0,85 m x 1,2 m (DIN A 0 – International Metric Standard) portrait format. Material to affix the posters will be provided on-site. It is the presenters own responsibility to set-up their poster on the assigned poster board at the beginning of the poster presentation and to remove it at the end of the assigned poster presentation slot.

Posters will be reviewed by a jury during the Poster Session on Friday evening. Presentations will be evaluated according to the following criteria:

- Significance and originality of the work
- Quality of the poster presentation
- Outstanding scientific achievement

A total of 11 presentations will be selected to receive the "Best Poster Award" of 150 € each and free admission to the Bunsentagung 2020 for the main author.

**The Poster Award Ceremony will take place during the Closing Ceremony on Saturday 1 June 2019 at 03:45 p.m.**

**Only authors present at the Closing Ceremony will be awarded.**

## yPC-FORUM (in German only)

**Thursday, 30 May 2019** **11:30 a.m. – 02:30 p.m.**

Friedrich-Schiller-Universität Jena, Hörsaal 6

The yPC-Forum is an annual event organised by the young Physical Chemists (yPC) of the DBG. It aims at scientists in earlier stages of their careers (Master and PhD students, Postdocs and young group leaders prior to obtaining a professorship) and provides information and discussion on career related issues. This year the career training agency Schiller & Mertens is going to offer a programme on "Career Development for Natural Scientists", which will cover introspection, strategies and development of a personal profile, and addresses career opportunities both outside and inside academia.

## eDu-Forum (in German only)

**Thursday, 30 May 2019** **11:30 a.m. – 02:30 p.m.**

Friedrich-Schiller-Universität Jena, Seminarraum 113

**PROGRAMME**

**Fokus Mathematik:**

Stefanie Gräfe (Theoretische Chemie, Jena)
**Die Mathematikausbildung in Jena – Wünsche und Realität**

Carolin Müller und Maximilian Pohle (JCF Jena)
**Im Wandel der Zeit: Erfahrungsberichte aus 10 Jahren Mathematik für Chemiker in Jena**

Wolf-Christian Pilgrim (Physikalische Chemie, Marburg)
**Mathematik für Chemiker am Marburger Chemie-Fachbereich (oder die Zähmung der Bestie)**

David-Samuel Di Fuccia (Fachdidaktik Chemie, Kassel)
**Über den Beitrag mathematischer Betrachtungen zum Verständnis chemischer Inhalte**

**Fokus Thermodynamik:**

Regina Rüffler (Physikalische Chemie, Hamburg)
**Thermodynamik mit Spaß – ein neues Lehrkonzept**

Stefan Kast (Theoretische Chemie, Dortmund)
**Thermodynamik für Studierende der Chemie und Chemischen Biologie an der TU Dortmund**

Gernot Friedrichs (Physikalische Chemie, Kiel) und Mathias Ropohl (Fachdidaktik Chemie, Essen)
**Vernetzung von chemischen und chemiedidaktischen Inhalten im Lehramtsstudium: Evaluation einer Intervention in der Physikalischen Chemie**

## yPC NETWORKING EVENING

**Friday, 31 May 2019** **09:00 p.m. – open end**

Following the poster evening yPC invites all participants to the Young Physical Chemists Networking Evening. We will meet at Theatercafé (Schillergäßchen 1) starting at 09:00 p.m. to end the day pleasantly with some drinks, music, and the chance to connect to other young and like-minded researchers. The evening will allow developing new and maintaining old friendships.

Chemical Physics Letters generously sponsors two drinks per person (conference registration required).

## OPENING HOURS ON-SITE CONFERENCE OFFICE (Foyer)

| | |
|---|---|
| Thursday, 30 May 2019 | 10:00 a.m. – 07:00 p.m. |
| Friday, 31 May 2019 | 08:00 a.m. – 04:00 p.m. |
| Saturday, 1 June 2019 | 08:00 a.m. – 02:00 p.m. |

## SELECTED OPTIONS FOR LUNCH AND DINNER

**Goethegalerie**
www.goethegalerie.de/branchen/restaurants
directly next to Carl-Zeiss-Campus

**Versilia Jena**
Italian restaurant
Wagnergasse 5 // 3 min*

**Stilbruch**
Thuringian specialties,
international dishes
Wagnergasse 1 // 3 min*

**Restaurant Saigon**
Vietnamese restaurant
Johannisplatz 18 // 2 min*

**Lo Studente**
Italian restaurant
Johannisstraße 18 // 5 min*

**Scala Turm Hotel Restaurant**
Leutragraben 1 // 4 min*

**Ratszeise Jena**
German restaurant
Markt 1 // 5 min*

**Lélek Jena**
Hungarian restaurant
Sonnenhof 1 // 5 min*

**Gaststätte „Zur Noll“**
Thuringian specialties
Oberlauengasse 19 // 7 min*

**Restaurant Bauersfeld**
Am Planetarium 5 // 7 min *

**Weintanne**
Dinner only
Jenergasse 13 // 5 min*

More options are available within short walking distance.

* walking distance from Carl-Zeiss-Campus

## CONTACT

**For information on conference, lecture and poster programme, registration and book of abstracts, please contact:**

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**For information on meetings of the German Bunsen Society, student grants, awards and exhibitors/sponsoring:**

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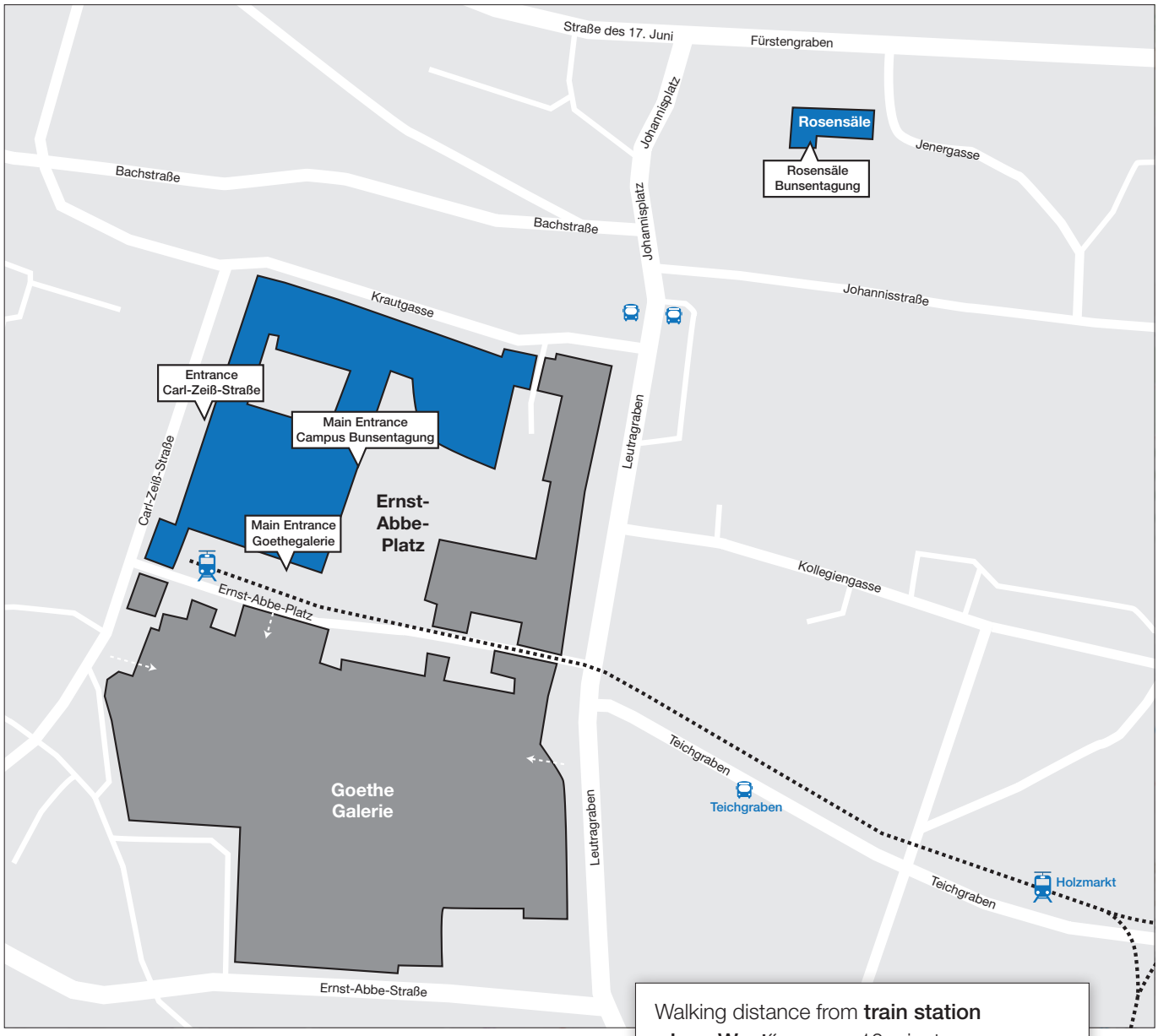
# MAP JENA




Walking distance from **train station „Jena West“** approx. 10 minutes

**30 May – 1 June 2019 · Jena · Germany**

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