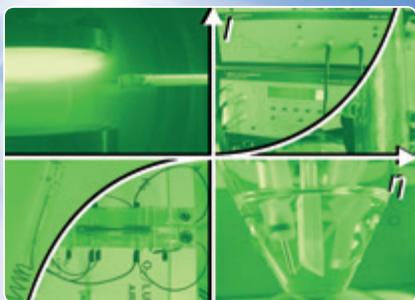




GESELLSCHAFT DEUTSCHER CHEMIKER

ELECTROCHEMISTRY 2014

Basic Science and Key Technology
for Future Applications



JOHANNES GUTENBERG-UNIVERSITÄT MAINZ
SEPTEMBER 22 – 24, 2014



JOHANNES GUTENBERG
UNIVERSITÄT MAINZ



Conference jointly organized by

Fachgruppe Elektrochemie (GDCh)



Fachgruppe Analytische Chemie
Arbeitskreis Elektrochemische Analysenmethoden
(ELACH, GDCh)



Deutsche Bunsen-Gesellschaft für physikalische
Chemie (DBG)



Gesellschaft für Chemische Technik
und Biotechnologie e.V. (DECHEMA)



Arbeitsgemeinschaft elektrochemischer
Forschungsinstitutionen e.V. (AGEF)



Gesellschaft für Korrosionsschutz e.V. (GfKORR)



Deutsche Gesellschaft für Galvano- und
Oberflächentechnik e.V. (DGO)

www.gdch.de/electrochemistry2014

SECOND CIRCULAR & PRELIMINARY PROGRAM

▶ SCIENTIFIC COMMITTEE

Helmut Baltruschat	Bonn
Thomas Bredow	Bonn
Andreas Bund	Ilmenau
Constanze Donner	Berlin
Frank Endres	Clausthal
Andreas Fischer	Ludwigshafen
Wolfram Fürbeth	Frankfurt/Main
Hubert Gasteiger	München
Angelika Heinzl	Duisburg
Timo Jacob	Ulm
Katharina Krischer	München
Fred Lisdat	Wildau
Klaus-Michael Mangold	Frankfurt/Main
Petr Novák	Villingen/CH
Wolfgang Schuhmann	Bochum
Siegfried R. Waldvogel	Mainz
Rainer Weber	Leverkusen
Gunther Wittstock	Oldenburg

▶ LOCAL ORGANIZING COMMITTEE

Andreas Fischer	Ludwigshafen
Birgit Janza	Mainz
Klaus-Michael Mangold	Frankfurt/Main
Carsten Siering	Mainz
Siegfried R. Waldvogel	Mainz
Claudia Weidlich	Frankfurt/Main
Kerstin Gajek	GDCh, Frankfurt/Main
Silvia Kirrwald	GDCh, Frankfurt/Main

Dear colleagues,

the organizing committee of the conference ELECTROCHEMISTRY 2014 has the pleasure to invite you to visit Mainz, Germany, on September 22 – 24, 2014.

Basic science and key technology for future applications is the theme of the meeting in Mainz. It reflects the innovative part of electrochemistry in current research and development.

The conference aims at providing an inspiring forum to discuss the challenges faced by basic research and also engineering. The program will link fundamental and applied aspects of electrochemistry, emphasizing the interdisciplinary nature of today's electrochemistry.

The conference covers all aspects of electrochemical science and engineering. Highlights amongst others are electroorganic synthesis and a panel discussion on the new research area of microbial electrosynthesis.

Mainz is located at the river Rhine surrounded by vineyards. The Johannes Gutenberg University is home to about 37,000 students. The famous carnival in Mainz is known all over the world. Unfortunately, September is not part of the "5th season".

The lecture halls are equipped with up-to-date technology. Poster sessions, company exhibitions and coffee breaks take place next to the lecture halls.

The conference ELECTROCHEMISTRY 2014 wants to carry on the spirit of the successful meetings 2008 in Gießen, 2010 in Bochum and 2012 in Munich. As before, the meeting will be held in English, thus opening it to the international scientific community.

S. R. Waldvogel, K.-M. Mangold and A. Fischer
(Conference Chairs)

Monday, September 22, 2014

- 11:00 – 13:00 Registration
- 13:00 – 13:15 Welcome (*lecture hall C01*)
- 13:15 – 14:05 Plenary Lecture by Philippe Marcus**
- 14:05 – 14:55 Plenary Lecture by Peter Broekmann**
- 14:55 – 15:30 Coffee Break (*chemistry entrance hall*)
- 15:30 – 17:50 3 parallel sessions with contributed papers
- 18:00 – 21:00 Poster Session with Beer & Pretzels

Tuesday, September 23, 2014

- 09:00 – 09:50 **Plenary Lecture by Jun-ichi Yoshida**
- 09:50 – 10:20 Coffee Break (*chemistry entrance hall*)
- 10:20 – 12:30 I) 2 parallel sessions with keynote lectures followed by contributed talks
II) German-Japanese Symposium on Electrosynthesis with keynote lectures followed by contributed talks
- 12:30 – 14:00 Lunch
- 14:00 – 15:30 I) Special feature “Microbial Electrosynthesis – future perspectives” – panel discussion and contributed talks
II) Session with keynote lectures followed by contributed talks
III) German-Japanese Symposium on Electrosynthesis with keynote lectures followed by contributed talks
- 15:30 – 16:00 Coffee Break (*chemistry entrance hall*)
- 16:00 – 17:30 I) 2 parallel sessions with contributed papers
II) German-Japanese Symposium on Electrosynthesis with keynote lectures followed by contributed talks
- 19:30 Conference Dinner & Awards Presentation at Kurfürstliches Schloss, Mainz

Wednesday, September 24, 2014

- 09:00 – 09:50 **Plenary Lecture by Martin Winter**
- 09:50 – 10:20 Coffee Break (*chemistry entrance hall*)
- 10:20 – 12:30 3 parallel sessions with keynote lectures followed by contributed talks
- 12:30 – 14:00 Lunch
- 14:00 – 15:30 3 parallel sessions with keynote lectures followed by contributed talks
- 15:30 – 16:00 Coffee Break (*chemistry entrance hall*)
- 16:00 – 17:40 Contributed talks
- 17:45 – 18:00 Closing remarks (*lecture hall C01*)

DEADLINES

- June 2, 2014** Notification of acceptance of talks/posters
- June 28, 2014** Deadline for scholarships
- June 30, 2014** Deadline for early registration; early registration is required for inclusion of oral contributions into the conference program (additional 50 € fee for late registration)
- August 1, 2014** Deadline for last-minute poster submission
- August 21, 2014** Deadline for cancellation (full refund minus 25 € processing fee)

To contribute to the high scientific quality of the conference, plenary and keynote lectures given by internationally recognized scientists from Germany and abroad were invited by the organizers. The topics of these talks cover a broad spectrum of problems and new trends in the field of electrochemistry.

▶ PLENARY LECTURES

Peter Broekmann, Bern/CH

From Fundamentals towards Applications: Nanoelectroplating in the Semiconductor Industry

Philippe Marcus, Paris/FR

Corrosion Processes at the Nanoscale

Martin Winter, Münster/DE

A Feeling Sense of Déjà vu? From Lithium Metal to Lithium Ion Batteries and Back Again

Jun-ichi Yoshida, Kyoto/JP

New Strategies in Electroorganic Synthesis: Reaction Integration Using Electrogenerated Cationic Intermediates

▶ KEYNOTE LECTURES

Fabio La Mantia, Bochum/DE

The Effect of Aging on the Kinetics and Thermodynamics of Lithium-ion Intercalation in TiO_2 Nanoparticles

Izabella Brand, Oldenburg/DE

Application of Infrared Spectroscopy under Electrochemical Control for the Analysis of Organized Films: Adsorption of Collagen on the Electrode Surface

Karl Mayrhofer, Düsseldorf/DE

Combinatorial Study of Fundamental Electrocatalyst Performance – the Scanning Flow Cell Coupled to Online Analytics

Marc Koper, Leiden/NL

Proton-coupled Electron Transfer in Electrocatalysis

Nicolas Plumeré, Bochum/DE

Mediated Electron Transfer between Redox Enzymes and Electrodes for Sensing and Technological Applications

Olaf Magnussen, Kiel/DE

In operando studies of Atomic-Scale Processes in Electrodeposition

Nuria Garcia-Araez, Southampton/GB

Soluble Redox Catalysts to Enhance and Relocate Oxygen Reduction and Evolution in the Lithium-Air Battery

Joachim Maier, Stuttgart/DE

Solid State Electrochemistry – From the Macro- to the Nanoscale

Seji Suga, Okayama/JP

Electrochemically Generated Carbocations for Stereoselective Synthesis and Catalytic Reactions

Shinsuke Inagi, Tokyo/JP

Electrochemical Post-Functionalization of π -Conjugated Polymers



Last-minute poster submissions from all areas of electrochemistry and electrochemical engineering are possible till **August 1, 2014**.

The poster session will be on Monday from 18:00 to 21:00, but posters will be left mounted for viewing for the entire duration of the conference.

Abstracts for last-minute poster contributions need to follow the style guidelines published on the conference website:

www.gdch.de/electrochemistry2014

Eight different sections on the following topics are being planned:

- Batteries and electrochemical energy storage devices
- Bioelectrochemistry
- Corrosion science and electrochemical machining
- Electrochemical engineering
- Electrochemical water treatment
- Electroanalysis and sensors
- Electrolytes
- Electroplating
- Electrosynthesis and electrocatalysis
- Fundamental and theoretical electrochemistry
- Solid state electrochemistry and photoelectrochemistry

SCHOLARSHIPS

The GDCh Division of Applied Electrochemistry offers a limited number of scholarships to student Division members in education presenting a scientific contribution (main author of an oral contribution or poster). Please send your application until **June 28, 2014**, latest to the GDCh, Ulrike Bechler, u.bechler@gdch.de.

SCIENTIFIC AWARDS



Promotion Prize in the Field of Applied Electrochemistry

The division of Electrochemistry of the Gesellschaft Deutscher Chemiker e.V. (German Chemical Society, GDCh) awards the **Promotion Prize in the Field of Electrochemistry** (Förderpreis auf dem Gebiet der Elektrochemie) to a young chemist. The prize is donated by BASF SE and consists of a certificate, € 1000, a lecture by the Award recipient and travel expenses. The prize will be awarded during the conference dinner. Application for this prize is already closed.



Joachim Walter Schultze Prize of the AGEF

This prize of the AGEF (Working Party of Electrochemical Research Institutions) will be awarded at the Electrochemistry 2014 to a young electrochemist who is at the beginning of her/his scientific carrier, has made a significant contribution to electrochemical research, and has demonstrated a visible independent profile.

Application for this prize is already closed.

Metrohm Autolab Poster Prize

Metrohm and Metrohm Autolab offer the Metrohm Autolab poster prize (introduced at ELACH conference 1993). Three excellent poster contributions will be awarded (€ 3000 in total). Posters will be judged by the Award Committee appointed by the Scientific Advisory Board, and winners will be announced at the conference dinner.

Monday, September 22, 2014

18:00 – 21:00 **Poster Session**
with free drinks and snacks

Tuesday, September 23, 2014

19:30 **Conference Dinner and Awards Presentation**
(posters and prizes)
in the castle “Kurfürstliches Schloss” in Mainz

Price p.P. (including beverages)*:
Regular Participants: € 55
Students/Postdocs: € 35
Booking required

* 19% VAT included



▶ VENUE

The conference will take place at the central campus of the Johannes Gutenberg-Universität Mainz
Lecture halls C01–03
Duesbergweg 10–14
55128 Mainz

▶ TRAVEL INFORMATION

Johannes Gutenberg University Mainz is easily reachable by car, train, and plane. Mainz University is a campus university and as such it is integrated into the Mainz public transport network. The campus itself has multiple bus stops for various locations on campus.

By Train and/or Bus

We recommend to leave Mainz central station via exit “West”. Please walk along the parking area towards the bus stop with buses heading to the right hand, away from the bridge crossing the railroads. Pick either of the lines 54, 55, 58 or 9. Take a short trip ticket. You can buy it directly from the bus driver or use an automatic ticket machine. Leave the bus at the second stop “Friedrich-von-Pfeiffer-Weg” and take the pedestrian bridge. When leaving the bridge walk towards the high apartment building. After passing Staudinger-Weg, turn left (street without name). The institutes are situated on the right hand side at the end of the street.

DB BAHN “Deutsche Bahn” offers attractive conditions for travelling to GDCh events. Further information can be found at www.gdch.de/bahn

By Car

Public parking is restricted at Mainz campus and only allowed with special admission. Therefore, **travelling by car is not recommended**. If access to Campus is required, set your navigation to Ackermannweg and take the right lane to stop at the central gate.

Public parking near Mainz campus: Set your navigation to Dalheimer Weg 2, parking areas are on the left hand side.

Please see the attached site plan for parking in the nearest vicinity of the campus.

By Plane – Airport Frankfurt/Main

- Train (EC, ICE, IC) from long-distance station Frankfurt airport or train (RE, RB or S8) from airport regional station to Mainz main station
- Duration: 30-40 minutes
- Ticket price: € 4,35 – € 13 (depending on the train). When using regional trains (RB/RE/S8), your ticket will include the bus fare to campus.

REGISTRATION

Please register online via internet not later than **June 30, 2014** at:

www.gdch.de/electrochemistry2014

After June 30, 2014, a late registration fee of € 50 will be added. All tickets and conference papers (incl. book of abstracts) will be given to participants upon check-in at the registration desk.

Participants are requested to wear their conference badges at all times for identification and admittance to the conference rooms.

For online-registration, payment by credit card or direct debit (only with German bank account) is preferred. If you want to pay by bank transfer (free of bank commission) please do not forget to print out the invoice at the end of your online-registration.

Please pay the fees to the following account (free of bank commission):

Gesellschaft Deutscher Chemiker e.V.
Commerzbank AG, Frankfurt/Main
IBAN DE85 5008 0000 0490 0200 00
SWIFT-BIC DRES DE FF
Code: 5200 09 / Electrochemistry 2014



© JGU Mainz-H. Schinke

REGISTRATION FEES**

	Early registration until June 30, 2014	From July 1, 2014
Member of joined scientific organizations	€ 220	€ 270
Non-member	€ 270	€ 320
Student/Postdoc (member)*	€ 110	€ 135
Student/Postdoc (non-member)*	€ 135	€ 185
Gold member (with over 50 years of GDCh membership)	free of charge	free of charge
Conference Dinner (including beverages)	€ 55	€ 55
Conference Dinner for Student/Postdoc (including beverages)	€ 35	€ 35

*) Fee applies to bachelor, master and Ph.D. students (valid student card or confirmation of supervisor required)

**) The registration fees are not liable to value added tax (tax exemption additional § 4 Nr. 22a UstG.)

Lunch at Mainz cafeteria ("Mensa"), the coffee breaks as well as the drinks & snacks during the Poster Session are included in the registration fee.

If fees are paid in advance, but after **September 5, 2014**, we kindly ask participants to show proof of payment when claiming their tickets and conference papers at the conference office. Credit cards (Amex, Mastercard, VISA) will be accepted.

CANCELLATION

Written cancellations received on or before **August 21, 2014** will be refunded less a € 25,- administration fee. After that date, the full amount of the invoice has to be paid. 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 tg@gdch.de.

If the conference is cancelled for whatever reason, fees paid will be refunded. Further recourse is excluded.

▶ BEVERAGES

Coffee, tea and soft drinks will be provided for free during the breaks.

▶ LUNCH

The Mainz cafeteria ("Mensa") is situated next to the lecture halls. Lunch is included in the registration fee. You will have access to the main area with two different main dishes, a selection of two stews, selectable side dishes as well as a salad bar. Sparkling water is included as well.

▶ ROOM RESERVATION

Rooms are reserved for the participants in various hotels throughout the city. The mainzplus CITYMARKETING will gladly assist you in booking accommodation in all categories. Please apply no later than **August 8, 2014**.

The link can be found on our homepage (Accommodation)

www.gdch.de/electrochemistry2014

The customers will be held accountable for non-occupancy of reserved rooms.

▶ COPYRIGHT PERMISSION

Photos made on GDCh conferences are used exclusively by GDCh for documentation, news coverage and advertisement.

INFORMATION CONCERNING THE SCIENTIFIC PROGRAM, ORGANIZATION AND OTHER GENERAL INFORMATION

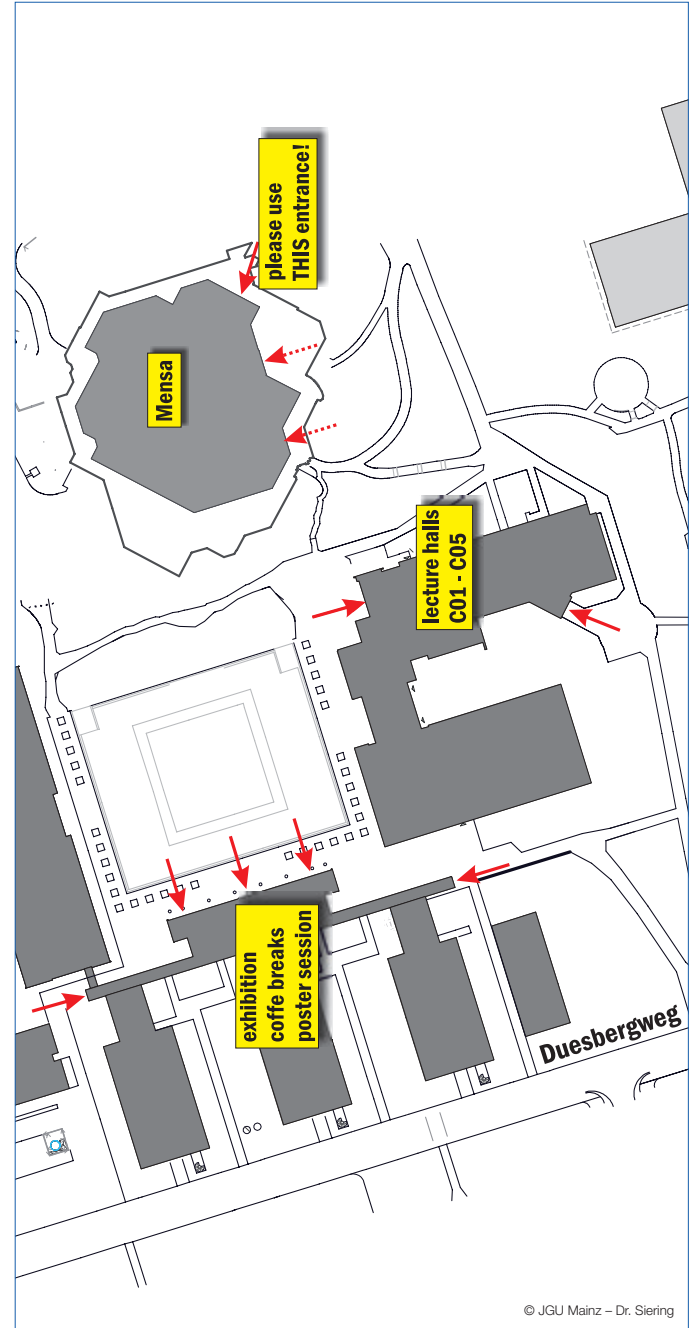
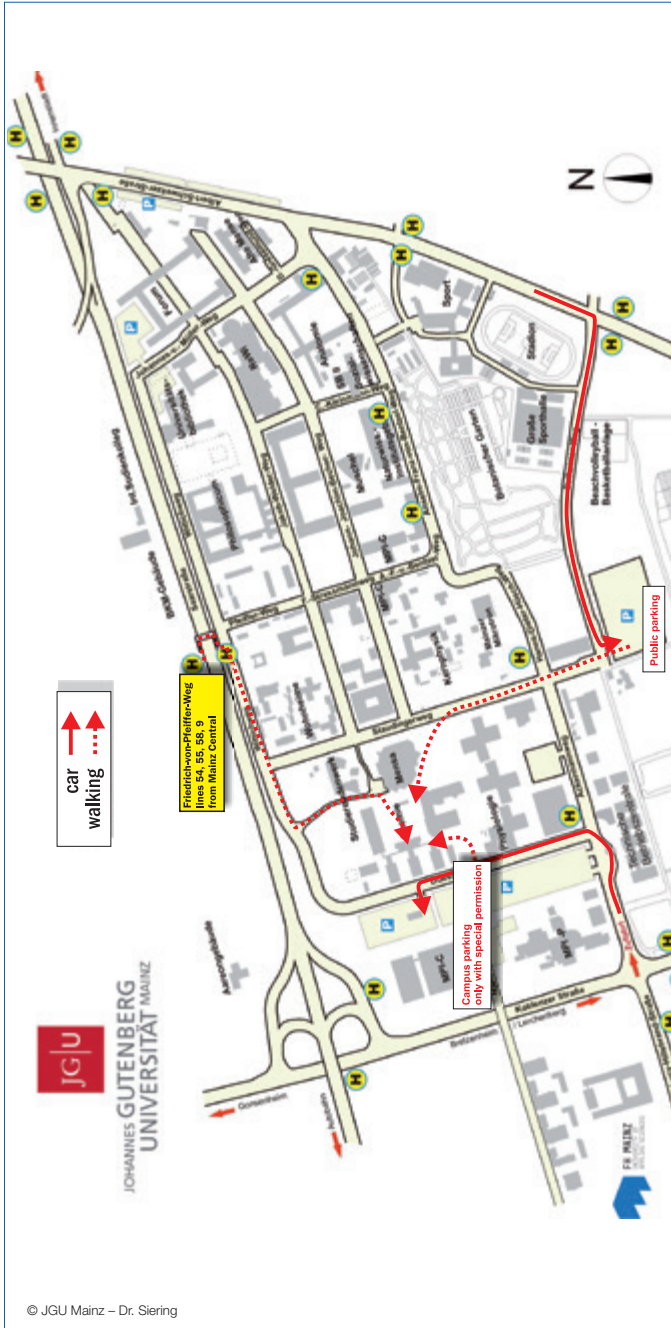
Prof. Siegfried R. Waldvogel
Johannes Gutenberg-Universität Mainz
Duesbergweg 10 – 14
55128 Mainz
Germany
Phone: +49 6131 39-26069
E-mail: waldvogel@uni-mainz.de

Dr. Klaus-Michael Mangold
DECHEMA-Forschungsinstitut
Electrochemistry
Theodor-Heuss-Allee 25
60486 Frankfurt am Main
Germany
Phone: +49 69 7564-327
E-mail: mangold@dechema.de

▶ INFORMATION BEFORE AND AFTER THE MEETING

Gesellschaft Deutscher Chemiker e. V.
Congress Team / Electrochemistry 2014
P.O. Box 90 04 40
60444 Frankfurt am Main
Germany
Phone: +49 69 7917-358 (Silvia Kirrwald)
E-mail: tg@gdch.de
Internet: www.gdch.de/electrochemistry2014

Executive Director: Professor Dr. Wolfram Koch,
Registered charity no: VR 4453, Registergericht Frankfurt am Main



UNVERZICHTBAR
 BAUSTEINE IHRER
 KARRIERE

Workshops Information

Konzepte **Kolloquien** Netzwerk

Beratung Perspektiven Wissen Impulse Beratung

Tagungen Konzepte International Karriereservice

Kurse Diskussion Beratung **Fortbildung** Jobbörse

Workshops **Kurse** Fortbildung Forschung Kolloquien

Netzwerk Tagungen **Beratung** Informationen Konzepte

Fortbildung Jobbörse Kurse **Wissen**

Diskussion Karriereservice

www.gdch.de



GESELLSCHAFT DEUTSCHER CHEMIKER

Gesellschaft
 Deutscher Chemiker e.V.
 Postfach 90 04 40
 60444 Frankfurt am Main

Telefon: 069 7917-0
 Fax: 069 7917-232
 E-mail: gdch@gdch.de

SPONSORS AND SUPPORTERS

We are grateful for the financial support by:

EVENT SPONSOR



PLATINUM SPONSORS



GOLD SPONSORS



SILVER SPONSORS



BRONZE SPONSORS



SPONSORS AND SUPPORTERS

We are grateful for the financial support by:

WILEY-VCH

The conference is also generously supported
by the following organisations:



Scientific Programme

Monday, September 22, 2014

01:00 p.m. Welcome, Hörsaal C01

01:15 p.m. PLENARY LECTURE
Corrosion Processes at the Nanoscale
P. Marcus, Paris/FR

02:00 p.m. PLENARY LECTURE
From Fundamentals towards Applications: Nanoelectroplating in the Semiconductor Industry
P. Broekmann, Bern/CH, N. T. M. Hai, Bern/CH, T. M. T. Huynh, Bern/CH, I. Gjurroski, Bern/CH, F. Stricker, Bern/CH, J. Furrer, Bern/CH, A. Flügel, Ludwigshafen/DE, C. Emmet, Ludwigshafen/DE, M. Arnold, Ludwigshafen/DE, I. Chang, Ludwigshafen/DE, D. Mayer, Ludwigshafen/DE

02:55 p.m. Coffee Break

Batteries and electrochemical energy storage devices 1, Hörsaal C01

03:30 p.m. KEYNOTE LECTURE
The effect of aging on the kinetics and thermodynamics of lithium-ion intercalation in TiO₂ nanoparticles
F. La Mantia, Bochum/DE

04:00 p.m. **Fundamental Studies on Mg Ion Intercalation into different oxide based host materials**
O. Schneider, Garching/DE, J. Ma, Garching/DE, E. Mostafa, Garching/DE, L. Seidl, Garching/DE, U. Stimming, Garching/DE, H. Si, Beijing/CN, X. Qiu, Beijing/CN

04:20 p.m. **Nitrogen-Containing Polycyclic Quinones as Cathode Materials for Lithium Batteries**
A. Shimizu, Kyoto/JP, Y. Tsujii, Kyoto/JP, H. Kuramoto, Kyoto/JP, T. Nokami, Kyoto/JP, Y. Inatomi, Osaka/JP, N. Hojo, Osaka/JP, J. Yoshida, Kyoto/JP

04:40 p.m. **Ionic Liquid-Derived Hierarchically Structured Carbon/Sulfur Nanocomposite Electrodes with a High Sulfur Loading for Application in Li/S Batteries**
T. Brezesinski, Eggenstein-Leopoldshafen/DE, A. Schneider, Eggenstein-Leopoldshafen/DE, H. Sommer, Eggenstein-Leopoldshafen/DE, J. Janek, Eggenstein-Leopoldshafen/DE

05:00 p.m. **Cr-based compounds: efficient catalyst for Li-O₂ battery**
F. Bardé, Zaventem/BE, Y. Shao-Horn, Boston/US, K.P.C. Yao, Boston/US, Y-C. Lu, Hong Kong/HK, J. Zhou, Saskatoon/CA, A. Grimaud, Boston/US

05:20 p.m. **A new catalyst for the oxygen evolution reaction in lithium oxygen batteries**
B. Bergner, Giessen/DE, A. Schürmann, Giessen/DE, K. Peppler, Giessen/DE, J. Janek, Giessen/DE

06:00 p.m. Postersession

Electroanalysis and sensors, Hörsaal C02

03:30 p.m. KEYNOTE LECTURE
Mediated electron transfer between redox enzymes and electrodes for sensing and technological applications.
N. Plumeré, Bochum/DE

04:00 p.m. **Simultaneous current density and topography mapping – development of ohmic microscopy**
I. Plettenberg, Oldenburg/DE, G. Wittstock, Oldenburg/DE

04:20 p.m. **Hydrogen permeation coupled to scanning Kelvin probe measurements in a 3D printed electrochemical cell**
G. Schirno, Linz/AT, W. Burgstaller, Linz/AT, A.W. Hassel, Linz/AT

04:40 p.m. **Detection of hydrogen peroxide and superoxide radical during electrocatalysis of oxygen reduction on polymer-modified electrode**
S. Dongmo, Oldenburg/DE, C. Dosche, Oldenburg/DE, G. Wittstock, Oldenburg/DE, T. Dietz, Potsdam/DE, U. Wollenberger, Potsdam/DE

05:00 p.m. **Wearable Organic Electrochemical Transistor for human Stress Monitoring**
N. Coppede, Parma/IT, G. Tarabella, Parma/IT, M. Villani, Parma/IT, D. Calestani, Parma/IT, S. Iannotta, Parma/IT, A. Zappettini, Parma/IT

05:20 p.m. **Interaction of Biphenyl and Its Derivatives with Model Lipid Membranes**
A. Rashid, Leeds/GB, A. Vakurov, Leeds/GB, A. Nelson, Leeds/GB

06:00 p.m. Postersession

Corrosion/Electrosynthesis, Hörsaal C03

- 03:30 p.m. KEYNOTE LECTURE
Combinatorial study of fundamental electrocatalyst performance - the Scanning Flow Cell coupled to online analytics
K. J. J. Mayrhofer, Düsseldorf/DE, S. Cherevko, Düsseldorf/DE, A.A. Topalov, Düsseldorf/DE, A. Schuppert, Düsseldorf/DE, J.P. Grote, Düsseldorf/DE, L. Rossrucker, Düsseldorf/DE, C. Laska, Düsseldorf/DE, A. Zeradjanin, Düsseldorf/DE, G. Keeley, Düsseldorf/DE, I. Katsounaros, Düsseldorf/DE
- 04:00 p.m. **Scanning Electrochemical Impedance Microscopy for Corrosion Science**
A. Bandarenka, Bochum/DE, A. Maljusch, Bochum/DE, V. Kuznetsov, Bochum/DE, K. Eckhard, Bochum/DE, W. Schuhmann, Bochum/DE
- 04:20 p.m. **Prediction of blister formation on organic coatings**
S. Walkner, Linz/AT, W. Burgstaller, Linz/AT, A.W. Hassel, Linz/AT
- 04:40 p.m. **Role of Defects in the Electrochemical Formation of Oxide on Zinc**
A. Erbe, Düsseldorf/DE, Y. Chen, Düsseldorf/DE, J. Zuo, Düsseldorf/DE
- 05:00 p.m. **Diamond Electrodes used in HF – containing electrolytes for the Production of Porous Silicon**
T. Mattheé, Itzehoe/DE, M. Fryda, Itzehoe/DE
- 05:20 p.m. **Nickel oxide based electrocatalysts for highly efficient electrochemical water oxidation**
K. Fominykh, Munich/DE, J. M. Feckl, Munich/DE, J. Sicklinger, Munich/DE, P. Zehetmaier, Munich/DE, K. Peters, Munich/DE

06:00 p.m. Postersession

Scientific Programme

Tuesday, September 23, 2014

09:00 a.m. **PLENARY LECTURE**
**New Strategies in Electroorganic Synthesis: Reaction Integration Using
Electrogenerated Cationic Intermediates**
J. Yoshida, Kyoto/JP

09:50 a.m. **Coffee Break**

Batteries and electrochemical energy storage devices 2, Hörsaal C01

- 10:20 a.m. **Sodium-ion batteries – Is it worth the effort?**
P. Adelhelm, Giessen/DE
- 10:50 a.m. **Porous Nanocarbon Composites and Hybrids for Advanced Na-ion Battery**
Y. Yu, Stuttgart/DE, C. Zhu, Stuttgart/DE, L. Fu, Stuttgart/DE, J. Maier, Stuttgart/DE
- 11:10 a.m. **On the thermodynamics, the role of the carbon cathode and the cycle life of
the sodium superoxide (NaO₂) battery**
C. L. Bender, Gießen/DE, P. Hartmann, Gießen/DE, M. Vracar, Karlsruhe/DE, P.
Adelhelm, Gießen/DE, J. Janek, Gießen/DE
- 11:30 a.m. **Dynamic modeling of a Na-O₂ cell for assessing the applicability of
electrochemical pressure impedance spectroscopy (EPIS)**
D. Grübl, Offenburg/DE, P. Hartmann, Giessen/DE, P. Adelhelm, Giessen/DE, J.
Janek, Giessen/DE, W. G. Bessler, Offenburg/DE
- 11:50 a.m. **Transport phenomena in sodium superoxide (NaO₂) batteries**
P. Hartmann, Gießen/DE, D. Grübl, Offenburg/DE, J. Janek, Gießen/DE, W. G.
Bessler, Offenburg/DE, P. Adelhelm, Gießen/DE
- 12:10 p.m. **Production and Characterization of Oxygen Electrodes for use in Li-Air
Batteries**
N. Wagner, Stuttgart/DE, D. Wittmaier, Stuttgart/DE, K.A. Friedrich, Stuttgart/DE

12:30 p.m. **Lunch**

Batteries and electrochemical energy storage devices 3, Hörsaal C01

- 02:00 p.m. **In Situ Investigation on Spatiotemporal Changes of SEI Properties by SECM**
H. Bültel, Oldenburg/DE, F. Peters, Bremen/DE, J. Schwenzel, Bremen/DE, G.
Wittstock, Oldenburg/DE
- 02:30 p.m. **Research on electrocatalytic centers in gas diffusion electrodes by SECM**
P. Schwager, Oldenburg/DE, D. Fenske, Oldenburg/DE, G. Wittstock, Oldenburg/DE
- 02:50 p.m. **In Situ Observation of the Insulating Character of the Solid
Electrolyte/Interphase on Carbonaceous Materials through Scanning
Electrochemical Microscopy**
G. Zampardi, Bochum/DE, F. La Mantia, Bochum/DE, W. Schuhmann, Bochum/DE
- 03:10 p.m. **Microcalorimetric measurement of entropy changes upon electrochemical
lithium bulk deposition and intercalation into graphite**
M. J. Schmid, Karlsruhe/DE, K. R. Bickel, Karlsruhe/DE, P. Novák, Villigen/CH, R.
Schuster, Karlsruhe/DE

03:30 p.m. **Coffee Break**

Batteries and electrochemical energy storage devices 4, Hörsaal C01

- 04:00 p.m. **Gassing and Passivation of Li₄Ti₅O₁₂ Electrodes in Carbonate-Based
Electrolytes in Li-Ion Batteries – An In-Situ FTIR Study**
M. Wachtler, Ulm/DE, A. Tost, Ulm/DE, E. A. Ramírez Gutiérrez, Ulm/DE, M.
Wohlfahrt-Mehrens, Ulm/DE
- 04:20 p.m. **In situ Raman spectroscopy of Li-ion batteries under working conditions**
T. Groß, Darmstadt/DE, C. Hess, Darmstadt/DE
- 04:40 p.m. **In situ light microscopy on lithium electrodeposition and dendrite growth: New
insights into an old problem**
D. Kramer, Ulm/DE, J. Steiger, Karlsruhe/DE, R. Mönig, Karlsruhe/DE
- 05:00 p.m. **New Intercalation Cathode Materials for Lithium Ion Batteries**
R. Chen, Ulm/DE, S. Ren, Karlsruhe/DE, M. Fichtner, Ulm/DE, H. Hahn, Karlsruhe/DE
- 05:20 p.m. **Ultrafast lithium insertion in nanosized titanate morphologies**
D. Fattakhova-Rohlfing, München/DE, K. Fominykh, München/DE, J. M. Feckl,
München/DE, P. Zehetmaier, München/DE, K. Peters, München/DE, T. Bein,
München/DE

07:30 p.m. Conference Dinner, Kurfürstliches Schloss, Mainz

Electroplating, Hörsaal C02

- 10:20 a.m. KEYNOTE LECTURE
In operando studies of atomic-scale processes in electrodeposition
O. Magnussen, Kiel/DE
- 10:50 a.m. **Enhancement of particle incorporation in Zn- TiO₂ dispersion coatings via surface functionalization with L-cysteine**
M. Camargo, Ilmenau/DE, U. Schmidt, Ilmenau/DE, A. Ispas, Ilmenau/DE, R. Grieseler, Ilmenau/DE, M. Wilke, Ilmenau/DE, A. Bund, Ilmenau/DE
- 11:10 a.m. **Nucleation and growth of Pd nanodeposits in lyotropic liquid crystal mixtures**
N. Al Abass, Southampton/GB, G. Denuault, Southampton/GB
- 11:30 a.m. **Electroplating dysprosium from ionic liquids as the first step of the grain boundary diffusion process for stronger Nd-Fe-B magnets**
G. Suppan, Regensburg/DE, M. Rührig, Erlangen/DE, H. J. Gores, Regensburg/DE
- 11:50 a.m. **Magnetic field assisted Electroforming: From basic research to technical applications**
M. Weinmann, Saarbrücken/DE, A. Jung, Saarbrücken/DE, H. Natter, Saarbrücken/DE
- 12:10 p.m. **Magnetic field templated patterning of the soft magnetic alloy CoFe**
F. Karnbach, Dresden/DE, M. Uhlemann, Dresden/DE, A. Gebert, Dresden/DE, J. Eckert, Dresden/DE, K. Tschulik, Oxford/GB

12:30 p.m. Lunch

02:00 p.m. Fördermöglichkeiten Elektrochemie, Hörsaal C02

Electrochemical engineering, Hörsaal C02

- 02:30 p.m. **Electrochemical decomposition of micropollutants**
M. Fryda, Itzehoe/DE, B. Behrendt-Fryda, Itzehoe/DE, A. Schmidt, Itzehoe/DE
- 02:50 p.m. **Characterisation of MT-PEM Based Stack for Application in Micro-Combined Heat and Power Systems**
N. Jacobs, Oldenburg/DE, F. Köhrmann, Oldenburg/DE, J. Büsselmann, Oldenburg/DE, S. Theuring, Berlin/DE, A. Dyck, Oldenburg/DE

03:10 p.m. N.N., Hörsaal C02

03:30 p.m. Coffee Break

Electrolytes, Hörsaal C02

- 04:00 p.m. **PM-IRRAS Spectroelectrochemistry at the Glassy Carbon/Deep Eutectic Solvent Interface**
B. Gollas, Graz/AT, L. Vieira, Graz/AT, R. Schennach, Graz/AT
- 04:20 p.m. **Electrolytes_for_secondary_Zinc/Air_batteries**
A. R. Mainar, San Sebastián/ES, O. Leonet, San Sebastian/ES, M. Bengoechea, San Sebastian/ES, O. Miguel, San Sebastian/ES, J. J. Iruin, San Sebastian/ES, J. A. Blazquez, San Sebastian/ES
- 04:40 p.m. **Spectroelectrochemical evidence of redox transitions in ultra thin MnO₂ electrodes in a new protic ionic liquid**
C. A. Castro Ruiz, Montreal/CA, D. Rochefort, Montreal/CA, D. Bélanger, Montreal/CA
- 05:00 p.m. **Li₁₀SnP₂S₁₂: Properties of an affordable Lithium Superionic Conductor**
P. Bron, Marburg/DE, S. Dehnen, Marburg/DE, B. Rölting, Marburg/DE
- 05:20 p.m. **Fast lithium ion conduction in Li_{7-x}La₃Zr_{2-x}Ta_xO₁₂ and Li₆BaLa₂Ta₂O₁₂ garnet-type thin films**
J. Reinacher, Gießen/DE, S. Wenzel, Gießen/DE, S. Berendts, Gießen/DE, J. Janek, Gießen/DE
- 07:30 p.m. Conference Dinner, Kurfürstliches Schloss, Mainz

Electrosynthesis 1, Hörsaal C03

- 10:20 a.m. KEYNOTE LECTURE
Electrochemical Post-functionalization of π -Conjugated Polymers
S. Inagi, Yokohama/JP
- 10:50 a.m. **Environmentally-Friendly Emulsion Electrosyntheses Using Tandem Acoustic Emulsification**
M. Atobe, Yokohama/JP, T. Koizumi, Yokohama/JP, K. Nakabayashi, Yokohama/JP
- 11:10 a.m. **Electrosynthesis of Branched EDOT Containing Conducting Copolymers – Electrochemical and Spectroscopical Studies**
M. Goll, Stuttgart/DE, A. Ruff, Stuttgart/DE, M. Scheuble, Stuttgart/DE, E. Muks, Stuttgart/DE, S. Link, Stuttgart/DE, M. C. Ruiz Delgado, Málaga/ES, S. Ludwigs, Stuttgart/DE
- 11:30 a.m. **Anodic oxidation of organoboron compounds**

T. Fuchigami, Tokyo/JP, Kuriyama Y., Yokohama/JP, Taniyama M., Yokohama/JP,
Inagi S., Yokohama/JP

11:50 a.m. **Organic Electrosynthesis: Scope and Selectivity**

H. J. Schäfer, Münster/DE

12:10 p.m. **Electrochemical Bioinspired Catalytic Reactions Mediated by Hydrophobic Vitamin B₁₂**

Y. Hisaeda, Fukuoka/JP

12:30 p.m. Lunch

Electrosynthesis 2, Hörsaal C03

02:00 p.m. **Electrochemically Generated Carbocations for Stereoselective Synthesis and Catalytic Reactions**

S. Suga, Okayama/JP

02:30 p.m. **Redox Mediators Based on the Phenanthro[9,10-d]imidazole Framework**

R. Francke, Santa Barbara/US, R. D. Little, Santa Barbara/US

02:50 p.m. **Synthesis and Electrochemical Behavior of π -Extended Hexa(2-thienyl)benzenes**

K. Mitsudo, Okayama/JP, J. Harada, Okayama/JP, Y. Tanaka, Okayama/JP, R. Shibahara, Okayama/JP, S. Suga, Okayama/JP

03:10 p.m. **On the mechanism of oxidative esterification of aromatic aldehydes in BMImBF₄: the role of electrogenerated NHC.**

G. Forte, Roma/IT, I. Chiarotto, Roma/IT, A. Inesi, Roma/IT, M. Feroci, Roma/IT

03:30 p.m. Coffee Break

Electrosynthesis 3, Hörsaal C03

04:00 p.m. **Electrochemical Automated Synthesis of TMG-chitotriomycin**

T. Nokami, Tottori/JP, T. Nokami, Tottori/JP, Y. Isoda, Tottori/JP, T. Itoh, Tottori/JP

04:20 p.m. **Electrochemical Synthesis of Glycoconjugates from Activated Sterol Derivatives**

A. Sobkowiak, Rzeszow/PL, J. Kowalski, Rzeszow/PL, J. Ploszynska, Rzeszow/PL, J.W. Morzycki, Bialystok/PL, L. Siergiejczyk, Bialystok/PL, A.M. Tomkiel, Bialystok/PL

04:40 p.m. **Anodic oxidation of C-glycosides and asymmetric induction using sugar derivatives as chiral templates**

S. Nishiyama, Yokohama/JP, S. Yajima, Yokohama/JP, T. Saitoh, Tsukuba/JP

05:00 p.m. **Anodic Approach for the Synthesis of Modified Nucleosides**

K. Chiba, Tokyo/JP, M. Takahashi, Tokyo/JP, T. Shoji, Tokyo/JP, Y. Okada, Tokyo/JP, S. Kim, Tokyo/JP

05:20 p.m. **Anodic oxidation of morphinan skeleton to afford novel opioid derivatives**

T. Saitoh, Tsukuba/JP, Y. Einaga, Yokohama/JP, S. Nishiyama, Yokohama/JP, H. Nagase, Tsukuba/JP

07:30 p.m. Conference Dinner, Kurfürstliches Schloss, Mainz

Scientific Programme

Wednesday, September 24, 2014

t.b.a. , Hörsaal C01

09:00 a.m. PLENARY LECTURE
t.b.a., Hörsaal C01

09:50 a.m. Coffee Break

Batteries and electrochemical energy storage devices 5, Hörsaal C01

10:20 a.m. **Novel approach for differential electrochemical mass spectrometry studies on the decomposition of ionic liquids**

J. Schnaidt, Ulm/DE, Y.T. Law, Ulm/DE, R.J. Behm, Ulm/DE

10:50 a.m. **The importance of the electrodes mass ratio in an Asymmetric Supercapacitor based on Activated Carbon and $\text{Li}_4\text{Ti}_5\text{O}_{12}$**

S. Dsoke, Ulm/DE, M. Secchiaroli, Ulm/DE, E. Gucciardi, Ulm/DE, B. Fuchs, Ulm/DE, X. Tian, Ulm/DE, M. Wohlfahrt-Mehrens, Ulm/DE

11:10 a.m. **AC/AC electrochemical capacitors with enhanced performance in water based electrolytes**

Q. Abbas, Poznan/PL, F. Béguin, Poznan/PL

11:30 a.m. **Performance of a bidirectional vanadium/air redox flow battery comprising a two-layered cathode**

J. grosse Austing, Oldenburg/DE, C. Nunes Kirchner, Oldenburg/DE, L. Komsijska, Oldenburg/DE, O. Osters, Oldenburg/DE, G. Wittstock, Oldenburg/DE

11:50 a.m. **New ex situ kinetic characterization of carbon felt electrodes for vanadium redox-flowbatteries**

M. Becker, Clausthal-Zellerfeld/DE, M. Kötter, Clausthal-Zellerfeld/DE, U. Kunz, Clausthal-Zellerfeld/DE, T. Turek, Clausthal-Zellerfeld/DE, N. Bredemeyer, Dortmund/DE, G. Polcyn, Dortmund/DE, C. Roosen, Dortmund/DE

12:10 p.m. **The Influence of Material Properties on the positive Half-cell Reaction in all-Vanadium Redox Flow Batteries**

J. Melke, Berlin/DE, J. Langner, Karlsruhe/DE, L. Riekehr, Darmstadt/DE, H. Ehrenberg, Karlsruhe/DE, C. Roth, Berlin/DE

12:30 p.m. Lunch

Batteries and electrochemical energy storage devices 6, Hörsaal C01

02:00 p.m. **Advances in Electrolytes for Lithium Ion Batteries: A Mechanistic Understanding**

B. Lucht, Kingston, RI/US

02:30 p.m. **A surface science approach to ionic electrode-electrolyte interfaces**

R. Hausbrand, Darmstadt/DE, Wolfram Jaegermann, Darmstadt/DE

02:50 p.m. **Electrochemical Intercalation Behavior of Electrolyte Anions into Conductive Additives for High Voltage Cathodes**

O. Fromm, Münster/DE, P. Meister, Münster/DE, X. Qi, Münster/DE, S. Rothermel, Münster/DE, J. Hüsker, Münster/DE, H.-W. Meyer, Münster/DE, M. Winter, Münster/DE, T. Placke, Münster/DE

03:10 p.m. **Effects of Electrolytes on the Stability and Morphology of Discharge Products in Lithium-Air Batteries**

T. Batcho, Cambridge, MA/US, D. Kwabi, Cambridge, MA/US, C.V. Thompson, Cambridge, MA/US, Y. Shao-Horn, Cambridge, MA/US

03:30 p.m. Coffee Break

Batteries and electrochemical energy storage devices 7, Hörsaal C01

04:00 p.m. **Power-to-X – Will Water Electrolysis Change Our Greenhouse Gas Emissions?**

H. Pütter, Neustadt/DE

04:20 p.m. **Activity and stability of water oxidation electrocatalysts in acidic media studied by SFC-ICPMS**

S. Cherevko, Düsseldorf/DE, A.R. Zeradjanin, Düsseldorf/DE, G.P. Keeley, Düsseldorf/DE, A.A. Topalov, Düsseldorf/DE, K.J.J. Mayrhofer, Düsseldorf/DE

04:40 p.m. **Linking HOR/HER and H-UPD Rates on Pt_{pc} in Alkaline Electrolyte**

P. J. Rheinländer, Garching/DE, J. Durst, Garching/DE, J. Herranz, Garching/DE, H. A. Gasteiger, Garching/DE

05:00 p.m. **Preparation and Characterization of Polymeric Phthalocyanine Sheets as Possible Electrocatalyst for Water-Splitting**

C. Geis, Gießen/DE, F. Müntze, Gießen/DE, D. Schlettwein, Gießen/DE

- 05:20 p.m. **A bottom-up approach to synthesize hierarchically structured electrodes**
M. Bron, Halle/DE, P. Wang, Halle/DE, M. Kühnert, Halle/DE, K. Piekalska, Halle/DE

Solid state electrochemistry and photoelectrochemistry, Hörsaal C02

- 10:20 a.m. KEYNOTE LECTURE
Solid State Electrochemistry — From the Macro- to the Nanoscale
J. Maier, Stuttgart/DE
- 10:50 a.m. **Engineering of interfaces for enhanced photo(electro)catalysis**
R. Beranek, Bochum/DE
- 11:10 a.m. **Gold nanostructures on silicon for photoelectrochemical CO₂ reduction**
S. Filser, München/DE, K. R. Bickel, München/DE, Q. Li, München/DE, K. Schönleber, München/DE, R. Nagel, München/DE, G. Scarpa, München/DE, P. Lugli, München/DE, K. Krischer, München/DE
- 11:30 a.m. **Bombardment induced ion transport through glasses and thin films: analysis of conductivity and diffusion profiles**
K.-M. Weitzel, Marburg/DE
- 11:50 a.m. **Complex bulk transport and oxygen exchange kinetics: Ba_{0.5}Sr_{0.5}Fe_{0.8}Zn_{0.2}O_{3-δ} as cathode material for fuel cells based on proton conducting oxides**
D. Poetzsch, Stuttgart/DE, R. Merkle, Stuttgart/DE, J. Maier, Stuttgart/DE
- 12:30 p.m. Lunch
- 02:00 p.m. Podiumsdiskussion - Microbial electrochemical technologies, Hörsaal C02

Bioelectrochemistry, Hörsaal C02

- 02:50 p.m. KEYNOTE LECTURE
Application of infrared spectroscopy under electrochemical control for the analysis of organized films: adsorption of collagen on the electrode surface
I. Brand, Oldenburg/DE, F. Meiners, Oldenburg/DE, M. Ahlers, Oldenburg/DE
- 04:00 p.m. **Nanostructured supramolecular protein clusters on electrodes: A switchable cascading reaction scheme for dual-analyte detection**
S. C. Feifel, Berlin/DE, A. Kapp, Berlin/DE, R. Ludwig, Wien/AT, F. Lisdat, Berlin/DE
- 04:20 p.m. **On the Challenges of the Scaling Up of and Performance Assessment of Bioelectrochemical Systems based on a Technical Scale Microbial Electrolysis Cell**
R. K. Brown, Braunschweig/DE, F. Harnisch, Leipzig/DE, S. Wirth, Braunschweig/DE, H. Wahlandt, Braunschweig/DE, T. Dockhorn, Braunschweig/DE, N. Dichtl, Braunschweig/DE, U. Schröder, Braunschweig/DE
- 04:40 p.m. **Spectroelectrochemical Insights into Oxygen-tolerant [NiFe]-hydrogenase immobilized on electrodes - An Approach towards Enzymatic Biofuel Cells**
N. Heidary, Berlin/DE, T. Utesch, Berlin/DE, P. Hildebrandt, Berlin/DE, M. A. Mroginski, Berlin/DE, O. Lenz, Berlin/DE, I. Zebger, Berlin/DE, A. Fischer, Berlin/DE
- 05:00 p.m. **Electrofuels: electrochemistry for biofuel synthesis?**
U. Schröder, Braunschweig/DE, T. dos Santos, Braunschweig/DE, P. Nileges, Braunschweig/DE, F. Harnisch, Braunschweig/DE, W. Sauter, Braunschweig/DE
- 05:20 p.m. **Bioanalytical Application of Electrochemically Assisted Injection - Capillary Electrophoresis - Mass Spectrometry**
M. Cindric, Regensburg/DE, F.-M. Matysik, Regensburg/DE

Electrosynthesis 4, Hörsaal C03

- 10:20 a.m. KEYNOTE LECTURE
Multiple proton-coupled electron transfer and structure sensitivity in electrocatalysis
M. Koper, Leiden/NL
- 10:50 a.m. **Catalytically active sites for the CO electrooxidation on PtRu electrodes**
A. K. Engstfeld, Ulm/DE, S. Brimaud, Ulm/DE, J. Klein, Ulm/DE, R.J. Behm, Ulm/DE
- 11:10 a.m. **Electrochemical CO₂ Reduction: A Combinatorial High-Throughput Approach for Catalytic Activity, Stability and Selectivity Investigations**
J.-P. Grote, Düsseldorf/DE, A.R. Zeradjian, Düsseldorf/DE, S. Cherevko, Düsseldorf/DE, K.J.J. Mayrhofer, Düsseldorf/DE
- 11:30 a.m. **TiO₂ based supports for electrochemical ethanol oxidation on Pt catalyst**
C. Rüdiger, Innsbruck/AT, C. Valero-Vidal, Innsbruck/AT, G. Garcia, Tenerife/ES, E. Pastor-Tejera, Tenerife/ES, M. Favaro, Padova/IT, G. Granozzi, Padova/IT, J. Kunze-Liebhäuser, Innsbruck/AT
- 11:50 a.m. **Towards systematic investigations in electrocatalysis: colloidal catalysts as a toolbox synthesis**
M. Arenz, Copenhagen/DK
- 12:10 p.m. **XAS Investigations on Unsupported Extended Pt-Pd Aerogels**
M. Öztaşlan, Villigen PSI/CH, M. Nachttegaal, Villigen/CH, W. Liu, Dresden/DE, A.-K. Herrmann, Dresden/DE, C. Yilmaz, Villigen/CH, C. Laugier Bonnaud, Grenoble/FR, M. Werheid, Dresden/DE, N. Gaponik, Dresden/DE, A. Eychmüller, Dresden/DE, T.-J. Schmidt, Villigen/CH

- 12:30 p.m. Lunch

Fundamental and theoretical electrochemistry 1, Hörsaal C03

- 02:00 p.m. **KEYNOTE LECTURE**
Soluble Redox Catalysts to Enhance and Relocate Oxygen Reduction and Evolution in the Lithium-Air Battery
N. Garcia-Araez, Southampton/GB, A. W. Lodge, Southampton/GB, J. Frith, Southampton/GB, L. Yang, Southampton/GB, W. Richardson, Southampton/GB, J. R. Owen, Southampton/GB
- 02:30 p.m. **New insights to the concept of Helmholtz-planes in electrochemical double layers**
M. Landstorfer, Berlin/DE, W. Dreyer, Berlin/DE, C. Gohlke, Berlin/DE
- 02:50 p.m. **Chlorine Evolution Reaction on RuO₂(110) Catalyst in Hydrochloric Acid Solution: Mechanistic ab initio Thermodynamics DFT Study**
K. S. Exner, Giessen/DE, J. Anton, Ulm/DE, T. Jacob, Ulm/DE, H. Over, Giessen/DE
- 03:10 p.m. **Oxidation of Formate on Au(111) in Phosphate Buffer Solutions: pH Effects versus specific Adsorption of Anions**
L. Kibler, Ulm/DE, J. Herrmann, Ulm/DE, M. Al-Shakran, Ulm/DE, T. Jacob, Ulm/DE

Fundamental and theoretical electrochemistry 2, Hörsaal C03

- 04:00 p.m. **Probing the potential energy surface for the proton equilibrium on gold**
M. Wessel, Essen/DE
- 04:20 p.m. **Nanoscale Electrochemical Characterization of Materials by Means of Spatially Resolved Electrostatic Force, Current and Strain Measurements**
B. Roling, Marburg/DE, M. Gellert, Marburg/DE, J. Siebert-Krümpelmann, Marburg/DE, V. Lushta, Gießen/DE, D. Ebeling, Gießen/DE, A. Schirmeisen, Gießen/DE
- 04:40 p.m. **Quantitative determination of H₂Se formation at Chalcogenide surface: DEMS and SPM studies**
S. Iqbal, Bonn/DE, C. Bondu, Bonn/DE, H. Baltruschat, Bonn/DE
- 05:00 p.m. **Correlation of Cu and Pt dissolution from Pt-Cu thin-film alloys**
A. K. Schuppert, Düsseldorf/DE, A. Savan, Bochum/DE, A. Ludwig, Bochum/DE, K.J.J. Mayrhofer, Düsseldorf/DE
- 05:20 p.m. **Ångstrom resolved real-time monitoring of oxide growth and reduction on noble and engineering metals**
M. Valtiner, Düsseldorf/DE, H.-W. Cheng, Düsseldorf/DE, B. R. Shrestha, Düsseldorf/DE, T. Baimpos, Düsseldorf/DE, S. Raman, Düsseldorf/DE