The 66th Annual Meeting of the International Society of Electrochemistry

Green Electrochemistry for Tomorrow's Society
4-9 October 2015, Taipei, Taiwan

Organized with the contribution of ECSTW 台灣電化學學會 The ElectroChemical Society of Taiwan

Contents List

International Society of Electrochemistry, chemin du Closelet 2, 1006 Lausanne, Switzerland

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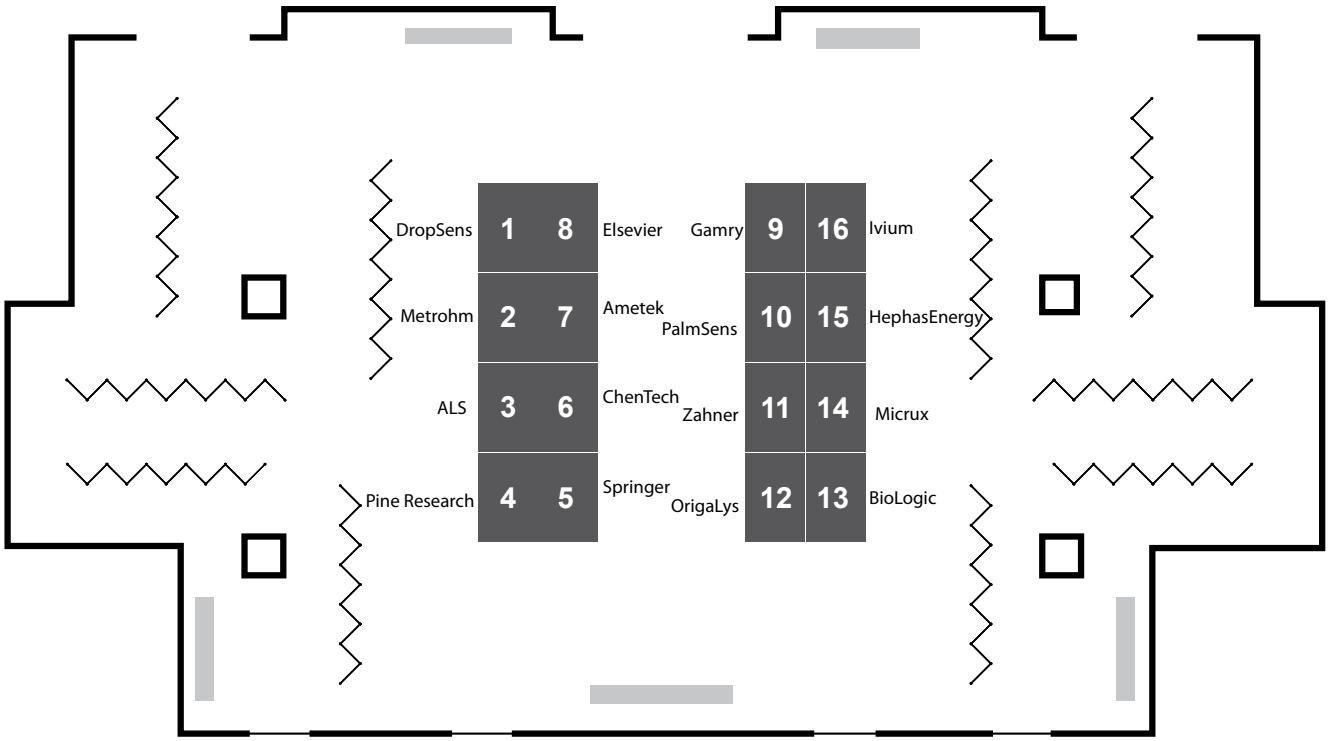
Printed in Taiwan

Exhibitor booths



Exhibition Hours

Monday:	09:30-20:00
Tuesday:	09:30-17:30
Wednesday:	09:30-12:30
Thursday:	09:30-17:30
Friday:	09:30-12:00

Sponsors

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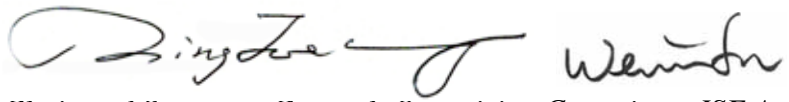
Welcome Address

On behalf of the Executive Committee of ISE, the Organizing Committee and Symposium Organizers, we warmly welcome you to Taipei and look forward to your participation in the 66th Annual Meeting of the ISE, "**Green Electrochemistry for Tomorrow's Society**", from October 4th to October 9th, 2015.
Taipei is the capital city of Taiwan. It was first inhibited by the Ketegalan Tribe hundreds of years ago and now has evolved into an international and high-tech city. Located not far from beautiful coast, Taipei is full of great natural beauty including Maokong, Yangmingshan and hot springs. Taipei is also home to various world-famous architectural or cultural landmarks such as National Palace Museum, Taipei 101, Hsing Tian Kong, Longshan Temple, etc. We hope that you will discover the versatile cultures and experience the Taiwanese hospitality, friendship and vibrant life here. You should definitely reserve some time to walk along the lovely city, explore museums, enjoy the hot springs, stroll down in night markets, have a gentle foot message, taste a variety of local or fusion cuisine, or simply sip a cup of tea for spiritual tranquility.
Taiwan has a strong tradition in electrochemistry, and scientists in this field have shown significant contribution to academic researches and industrial applications. Nevertheless, the Electrochemical Society of Taiwan (ECSTw) was just founded in 2013 and became one of regional ISE representatives in 2014. The 66th ISE annual meeting is the first ISE conference held ever in Taiwan, but you will expect more ISE conferences hosted by Taiwan in future.
The theme of the 66th ISE annual meeting is planned to address the growing needs for sustainable materials, technologies, processes and applications ranging from energy, environments to food and healthcare in our society. The meeting consists of 18 Symposia sponsored by all Divisions of the ISE. The Symposia organizers have paid a particular attention to preparation of the scientific program to emphasize the most pressing and emerging issues of the field as well as to outline the likely future directions of its development.
"66" means "great success, running smoothly" in local culture. Regardless of all the efforts extended by the Organizing committee, Symposia organizers and Executive Committee so far, the Meeting cannot truly succeed without your participation. We, therefore, sincerely hope that your particular contribution to the scientific program and fruitful discussion will make the 66th Annual ISE Meeting successful and memorable. Finally, we also hope the provided platform and distributed information during the meeting would generate new breakthroughs and in turn furnish a springboard for innovative ideas, future cooperation and new friendship.



Chair and Secretary General, Organizing Committee, ISE Annual Meeting 2015

Organizing Committee

Christian Amatore, *France*
Susana Cordoba de Torresi, *Brazil*
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Manuela Rueda, *Spain*
Wei-nien Su, *Taiwan (Secretary General)*
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Bernard Tribollet, *France*
Wei-Ta Tsai, *Taiwan*
Chi-Chao Wan, *Taiwan*
Nae-Lih Wu, *Taiwan*

Symposium Organizers

Symposium 1: New Directions in Analytical Electrochemistry
Lin-Chi Chen (Coordinator), National Taiwan University, Taiwan
Meng-Jiy Wang, National Taiwan University of Science and Technology, Taiwan
Alison Downard, University of Canterbury, New Zealand
Daniel Mandler, The Hebrew University of Jerusalem, Israel

Symposium 2: Electrochemical Aspects of Biological Systems: Theory, Experiment and Applications
Damien Arrigan (Coordinator), Curtin University, Australia
Shen-Ming Chen, National Taipei University of Technology, Taiwan
Elena Ferapontova, Aarhus University, Denmark
Mei-Jywan Syu, National Cheng Kung University, Taiwan

Symposium 3: Batteries for Tomorrow's World
Robert Kostecki (Coordinator), Lawrence Berkeley National Laboratory, USA
She-Huang Wu (Co-coordinator), Tatung University, Taiwan
Kuniaki Tatsumi, National Inst. of Advanced Industrial Science & Technology, Japan
Fu-Ming Wang, National Taiwan University of Science and Technology, Taiwan

Symposium 4: Advances in Fuel Cells from Materials to Systems
Hiroyuki Uchida (Coordinator), University of Yamanashi, Japan
Lorenz Gubler (Co-coordinator), Paul Scherrer Institute, Switzerland
Kuan-Zong Fung, National Cheng Kung University, Taiwan
Kuei-Hsien Chen, Institute of Atomic and Molecular Sciences, Taiwan
Yu-Lin Kuo, National Taiwan University of Science and Technology, Taiwan

Symposium 5: Novel Insights to Electrochemical Capacitors
Hsi-Sheng Teng (Coodinator), National Cheng Kung University, Taiwan
Chi-Chang Hu (Co-coordinator), National Tsing Hua University, Taiwan
Elzbieta Frackowiak (Coordinator), Poznan University of Technology, Poland
Masashi Ishikawa, Kansai University, Japan
Frédéric Favier, CNRS University of Montpellier 2, France

Symposium 6: New Progress in Electrochemical Solar Cells
Ladislav Kavan (Coordinator), J. Heyrovsky Inst. Physical Chemistry, Czech Republic
Anders Hagfeldt, Uppsala University, Sweden
Kuo-Chuan Ho, National Taiwan University,Taiwan
Jih-Jen Wu, National Cheng Kung University, Taiwan

Symposium 7: Electrodeposition - The Frontier Approach in Material Science and Nanofabrication
Stanko Brankovic (Coordinator), University of Houston, USA
Massimo Innocenti, University of Florence, Italy
Nosang Myung, University of California, USA
Wei-Ping Dow, National Chung Hsing University,Taiwan
Ming-Der Ger, National Defense University, Taiwan

Symposium 8: Corrosion and Passivity
Nick Birbilis (Coordinator), Monash University, Australia
Dirk Engelberg, University of Manchester, UK
Shinji Fujimoto, Osaka University, Japan
Jing-Chie Lin, National Central University, Taiwan
Chao-Sung Lin, National Taiwan University, Taiwan

Symposium 9: Electrocatalytic Materials
Kotaro Sasaki (Coordinator), Brookhaven National Laboratory, USA
Andrew Lin, Chang Gung University, Taiwan
Chen-Hao Wang, National Taiwan University of Science & Technology, Taiwan
Anthony Kucernak, Imperial College London, UK

Symposium 10: Electrochemical Technology: New Challenges for a More Competitive Economy
Juan Manuel Peralta-Hernandez (Coordinator), CIATEC, Mexico
Shi-Chern Yen (Co-coordinator), National Taiwan University, Taiwan
Manuel Andres Rodrigo, Universidad de Castilla-la-Mancha, Spain
Alex Peng, Industrial Technology Research Institute, Taiwan

Symposium 11: New Important Frontiers in Molecular Electrochemistry
Jirí Ludvik (Coordinator), J. Heyrovsky Inst of Physical Chemistry, Czech Republic
Chun-Hsien Chen (Co-coordinator), National Taiwan University, Taiwan
Olivier Buriez, CNRS UMR ENS, France
Flavio Maran, University of Padova, Italy
Armando Pombeiro, Instituto Superior Tecnico, Portugal

Symposium 12: Physical Electrochemistry: Spectroscopic, Structural, and Theoretical Investigations of the Electrified Interface
Andrea Russell (Coordinator), University of Southampton, UK
Axel Gross, Ulm University, Germany
Ifan Stephens, Technical University of Denmark, Denmark
Jyh-Chiang Jiang, National Taiwan University of Science and Technology,Taiwan
Yuh-Lang Lee, National Cheng Kung University, Taiwan

Symposium 13: Molecular Systems for Energy Conversion
Jay Wadhawan (Coordinator), The University of Hull, UK
Carlos Eduardo Frontana Vazquez, CIDETEQ, Mexico
Nathan Lawrence, Schlumberger Cambridge Research, UK
Bluse Ching-Hsing Chen, National Taiwan Univ. Science and Technology, Taiwan

Symposium 14: Modeling, Design and Characterization of Nanostructured, Electroactive and Multifunctional Materials
Francesco Paolucci (Coordinator), University of Bologna, Italy
Pawel J. Kulesza, University of Warsaw, Poland
Renato Seeber, University of Modena and Reggio Emilia, Italy
Chin-Lung Kuo, National Taiwan University, Taiwan
Shirley Meng, University of California San Diego, USA

Symposium 15: Electrochemical Engineering from a Quantum Description to the Plant Modeling: Experiments and Design across Length Scales
Alejandro A. Franco (Coordinator), CNRS-University of Picardie, France
Hung-Lung Chou (Co-coordinator), National Taiwan Univ. Science & Techn, Taiwan
François Lapicque, CNRS and University of Lorraine, France
Jaeyoung Lee, Gwangju Institute of Science and Technology, Korea

Symposium 16: Supramolecular Electrochemistry for Analysis, Medicine and Biological Sciences
Marilia Goulart (Coordinator), Federal University of Alagoas, Brazil
Stéphane Arbault, University of Bordeaux 1, Pessac, France
Renata Bilewicz, University of Warsaw, Warsaw, Poland
Hsien-Chang Chang, National Cheng Kung University, Tainan City, Taiwan
Chii-Wann Lin, National Taiwan University, Taipei, Taiwan

Symposium 17: Novel in Situ in Operando Methods
Hector Abruna (Coordinator), Cornell University, Ithaca, USA
Patrick Unwin, University of Warwick, Coventry, UK
Anthony Kucernak, Imperial College London, London, UK
Michael Eikerling, Simon Fraser University, Burnaby, Canada
Shawn D. Li, National Taiwan University of Science and Technology, Taipei, Taiwan
Ming Chang Yang, National Cheng Kung University, Tainan City, Taiwan

Symposium 18: General Session
Justin Gooding (Coordinator), The University of New South Wales, Sydney, Australia
Juan M. Feliu, University of Alicante, Alicante, Spain
Nae-Lih Wu, National Taiwan University, Taipei, Taiwan
Liang-Yih Chen, National Taiwan University of Science and Technology, Taipei, Taiwan

Tutorial Lectures and Workshop

Sunday, 4 October 2015

Location: TICC

Taipei International Convention Center

13:30 to 17:00

Tutorial 1

Room 201 AB

Fundamental Aspects and Applications of Cu Electrodeposition

Rohan Akolkar, *Case Western Reserve University, USA*
Peter Broekmann, *University of Bern, Switzerland*

13:30 to 17:00

Tutorial 2

Room 201 EF

Principles and Applications of in situ in Operando Methods in Electrochemistry

Neeraj Sharma, *The University of New South Wales, Australia*
Bluse Ching-Hsing Chen, *National Taiwan University of Science and Technology, Taiwan*

13:30 to 17:00

EA Workshop

Room 101 C

Electrochimica Acta / ISE author workshop

Robert Hillman, *Editor-in-Chief Electrochimica Acta, University of Leicester, United Kingdom*

15:00 to 15:15
Coffee break

Plenary Lectures

Location: Plenary Hall

Monday, 5 October 2015

08:15 to 09:15
Tomokazu Matsue
(Tohoku University, Japan)
Electrochemical Imaging with Micro/Nanoelectrode Systems

Tuesday, 6 October 2015

08:15 to 09:15
Hongjie Dai
(Stanford University, USA)
Novel Materials for Renewable Energy

Wednesday, 7 October 2015

08:15 to 09:15
Li-Jun Wan
(Chinese Academy of Sciences, China)
Nanomaterials for Energy Conversion and Storage: Structure Design and In-Situ Monitoring

Thursday, 8 October 2015

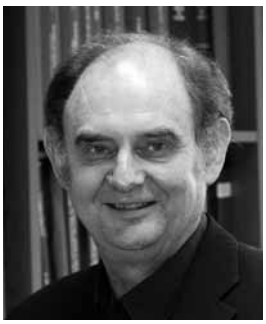
08:15 to 09:15
Martin Winter
(Münster University, Germany)
Neglected, Forgotten or Unimportant? Inactive Materials in Lithium Ion Batteries

Friday, 9 October 2015

08:15 to 09:15
Alan Bond
(Monash University, Australia)
A Voltammetric Odyssey: From Homogeneous Dropping Mercury to Heterogeneous Macro and Nano Electrodes; From the Manual Era to Advanced Automated High Speed Computation

ISE Prize Winners 2014

Electrochimica Acta Gold Medal



Alan Bond, *Monash University, Australia*

08:15 to 09:15, Friday, 9 October 2015, Plenary Lecture, Plenary Hall

A Voltammetric Odyssey: From Homogeneous Dropping Mercury to Heterogeneous Macro and Nano Electrodes; From the Manual Era to Advanced Automated High Speed Computation

The Electrochimica Acta Gold Medal was awarded to Alan Bond for his outstanding and diverse contributions to electrochemical science, spanning innovation in electrochemical techniques, fundamental mechanistic insights and novel materials and media.

Brian Conway Prize for Physical Electrochemistry

Masatoshi Osawa, *Hokkaido University, Japan*

09:30 to 10:10, Monday, 5 October 2015, Symposium 12, Room 101C

Surface-Enhanced Infrared Absorption Spectroscopy (SEIRAS): Shedding Light on The Electrochemical Interface

The Brian Conway Prize for Physical Electrochemistry was awarded to Prof. Masatoshi Osawa in recognition of his pioneering work on the development of in situ, time-resolved Surface-Enhanced Infrared Absorption Spectroscopy (SEIRAS).

Jaroslav Heyrovsky Prize for Molecular Electrochemistry

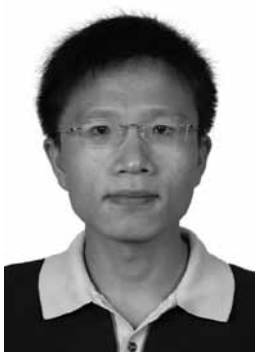
Flavio Maran, *Padova University, Italy*

14:00 to 14:40, Thursday, 8 October 2015, Symposium 11, Room 201D

Molecular Electrochemistry: from Protons to Electrons, from Molecules to Molecular Nanoclusters

The Jaroslav Heyrovsky Prize for Molecular Electrochemistry was awarded to Flavio Maran, Padova University, Italy, in recognition of his outstanding contributions to molecular electrochemistry, particularly mechanistic aspects on organic systems and hybrid systems constituted by molecule-like monolayer-protected gold nanoclusters.

Tajima Prize



Yu-Guo Guo, *Chinese Academy of Sciences, China*

09:30 to 10:10, Thursday, 8 October 2015, Symposium 3, Room 201AB

Advanced Cathodes and Metallic Anodes for Next-Generation Rechargeable Batteries

The Tajima Prize was awarded to Yu-Guo Guo in recognition of his research activity in electrochemical energy storage with batteries, ion/electron storage and transport in nanoscaled systems kinetics and thermodynamics of nanostructured energy materials.

ISE Prize Winners 2014

Bioelectrochemistry Prize of ISE Division 2

James Rusling, *University of Connecticut, USA*

09:30 to 10:10, Monday, 5 October 2015, Symposium 2, Room 101D

From Protein Film Bioelectrochemistry to Biomedical Devices and Diagnostics

The Bioelectrochemistry Prize of ISE Division 2 was awarded to James Rusling in recognition of his research activity on thin biosystems for bioelectrochemical applications, direct electron transfer with proteins, bioelectrochemical catalysis, and detection of cancer biomarkers.

Hans-Jürgen Engell Prize

Fabio La Mantia, *Ruhr-Universität Bochum, Germany*

10:10 to 10:30, Tuesday, 6 October 2015, Symposium 3, Room 201AB

Aqueous Zinc-Ion Batteries based on Prussian Blue Derivatives

The Hans-Jürgen Engell Prize was awarded to Fabio La Mantia for his excellent contribution to electrochemical materials science in the field of Li-ion batteries.

Early Career Analytical Electrochemistry Prize of ISE Division 1

Jan Vacek, *Palacky University, Olomouc, Czech Republic*

09:30 to 10:10, Thursday 8 October 2015, Symposium 1, Room 103

Electrochemistry of Membrane Proteins

The Early Career Analytical Electrochemistry Prize of ISE Division 1 was awarded to Dr. Jan Vacek for his work on new electrochemical methodologies for the analysis of biopolymer interactions and structural modifications, and on electroanalysis of biomolecules.

ISE Prize for Environmental Electrochemistry

Sergi Garcia-Segura, *Barcelona University, Spain*

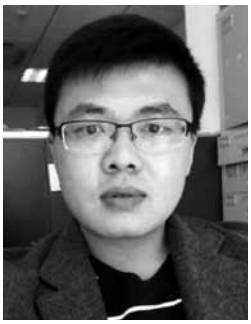
14:00 to 14:20, Monday 5 October 2015, Symposium 10, Room 101B

Electrochemical Processes Based on Fenton´s Reaction for Wastewater Treatment. An Eco-Friendly, Efficient and Affordable Technology: Then, Now and Tomorrow

The ISE Prize on Environmental Electrochemistry was awarded to Sergi Garcia Segura in recognition of his contributions on the use of electrochemical advanced oxidation processes for wastewater treatment.

ISE Prize Winners 2014

ISE Prize for Applied Electrochemistry



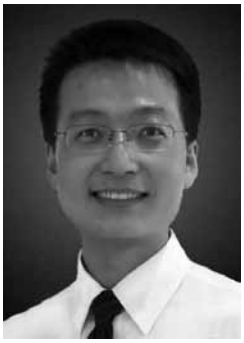
Yonggang Wang, *Key Laboratory of Molecular Catalysis, China*

10:30 to 10:50, Monday, 5 October 2015, Symposium 3, Room 201AB

Aqueous Li (or Na)-ion Batteries for Grid-scale Energy Storage

The ISE Prize for Applied Electrochemistry was awarded to Yonggang Wang for discovery and characterization of new materials, and invention of energy storage devices.

Oronzio and Niccolò De Nora Foundation Young Author Prize



Peng Bai, *Massachusetts Institute of Technology, USA*

16:40 to 17:00, Thursday, 8 October 2015, Symposium 3, Room 201C

A Solid-Electrolyte-Enabled Lithium-Bromine Flow Battery

The Oronzio and Niccolò De Nora Young Author Prize was awarded to Bai Peng, author of the article "Statistical kinetics of phase-transforming nanoparticles in LiFePO4 porous electrodes", Electrochimica Acta 89 (2013) 644– 651 (co-author Guangyu Tian).

Electrochimica Acta Travel Award Winners 2015

Wenjing Hong, *Switzerland*
Klaus Mathwig, *the Netherlands*

ISE Travel Award Winners 2015

Tso-Fu Mark Chang, *Japan*
Marta Costa Figueiredo, *the Netherlands*
Javier Llanos, *Spain*
Jian-Feng Li, *China*
Xiaopeng Li, *Germany*
Justus Masa, *Germany*
Joaquin Rodriguez-Lopez, *USA*
Min-Hsin Yeh, *USA*

ISE Society Meetings

Sunday, 4 October 2015

Opening Ceremony

17:00 to 18:00 › Plenary Hall

Monday, 5 October 2015

Division Officers Luncheon Meeting

12:50 to 13:50 › Room 201C

Regional Representatives Luncheon Meeting

12:50 to 13:50 › Room 201D

Tuesday, 6 October 2015

Council Meeting

12:50 to 13:50 › Room 201AB

Thursday, 8 October 2015

General Assembly

11:10 to 12:10 › Plenary Hall

Division Meetings

12:50 to 13:50

Division 1 Analytical Electrochemistry › Room 101D
Division 2 Bioelectrochemistry › Room 101B
Division 3 Electrochemical Energy Conversion and Storage › Room 101C
Division 4 Electrochemical Materials Science › Room 102
Division 5 Electrochemical Process Engineering and Technology › Room 101A
Division 6 Molecular Electrochemistry › Room 201D
Division 7 Physical Electrochemistry › Room 201C

Friday, 9 October 2015

Closing Ceremony

12:30 to 12:50 › Plenary Hall

See room locations on back cover

Poster presentation session 1 - Monday

Symposia: 1, 2, 3

Poster set-up Monday: 08:30-10:30 *See poster locations map on page 173*
Poster take-down Monday: 18:00-19:00

Poster Presentation: Monday, 5 October: 10:50-12:30 (Banquet Hall - 3F)

Poster presentation session 2 - Tuesday

Symposia: 5, 6, 8, 9, 11, 18

Poster set-up Tuesday: 08:30-10:30 *See poster locations map on page 174*

Poster take-down Tuesday: 18:00-19:00

Poster Presentation: Tuesday, 6 October: 10:50-12:30 (Banquet Hall - 3F)

Poster presentation session 3 - Wednesday

Symposia: 4, 7, 10, 12, 13, 14, 15, 16, 17

Poster set-up Wednesday: 08:30-10:30 *See poster locations map on page 175*
Poster take-down Thursday: 14:00-16:00

Poster Presentation: Wednesday, 7 October: 10:50-12:30 (Banquet Hall - 3F)

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General Information

Publications

A special issue of the Society's journal, Electrochimica Acta, is planned based on selected original contributions made at the conference. Selection will be made by an international editorial Committee comprising the following Editors and Guest Editors, one for each of the Symposia in which the meeting is articulated:
Symposium 1 Alison Downard, Symposium 2 Elena Ferapontova, Symposium 3 Robert Kostecki, Symposium 4 Lorenz Gubler, Symposium 5 Chi-Chang Hu, Symposium 6 Ladislav Kavan, Symposium 7 Wei Ping Dow, Symposium 8 Nick Birbilis, Symposium 9 Kotaro Sasaki, Symposium 10 Manuel Andres Rodrigo, Symposium 11 Flavio Maran, Symposium 12 Andrea Russell, Symposium 13 Carlos Eduardo Frontana, Symposium 14 Pawel J. Kulesza, Symposium 15 François Lapicque, Symposium 16 Renata Bilewicz, Symposium 17 Michael Eikerling. The Special Issues Editor, Sergio Trasatti, will co-ordinate the action of the editorial Committee and will be directly responsible for the review procedure. The Special Issue is planned to accommodate ca. 170 papers.

Submission only on invitation of one of the Guest Editors.
Submission timespan: 10 October 2015 - 10 January 2016

Social Program

RECEPTIONS

Welcome Reception

Sunday, 4 October 2015, 18:00-20:00

After the Opening Ceremony on floor 1F of the Taipei International Convention Center (TICC)

Monday Reception

Monday, 5 October 2015, 18:40-20:00 on floor 3F in the Taipei International Convention Center (TICC)

Tuesday Social Event – Ge Zai Xi (Taiwanese Opera)

(Sponsored by Bureau of Foreign Trade, Ministry of Economic Affairs)

Tuesday, 6 October 2015, 20:00-21:00
At the National Taiwan Arts Education Center / No. 47, Nanhai Road, Taipei City
Ticket: US$ 10.00 had to be booked online during registration
Transportation: MRT Danshui Line (Line 2) to Chiang Kai-Shek Memorial Hall (Exit at No. 1 or 2)
Songshan-Xindian Line (Line 3) to Xiaonamen (Exit at No. 3) http://www.arte.gov.tw/eng/vist_train.asp
Please check map on inside backcover.

Ming Hwa Yuan Arts & Cultural Group
About Ge Zai Xi (Taiwanese Opera)
Ge Zai Xi (Taiwanese Opera) is the only performing art form that originated within Taiwan. Because of its origin as folk entertainment, the development and expression of Ge Zai Xi are free from restrains and strict rules of other more formal and traditional performing arts. This all embracing characteristic allowed Ge Zai Xi to develop over the pass hundred year into a unique and constantly evolving performing art form which includes fusion of Beijing opera, Gaojia opera, Nanguan and Beiguan as well as modern drama to name a few.

Thursday Banquet

Thursday, 8 October 2015, 19:00
At the Taipei World Trade Center Club on the 33rd floor. Only 3 walking minutes from the conference center.
http://www.twtcclub.com.tw/en/aboutus.html
Price: US$70.00
Places are limited.
All tickets for the Banquet are nonrefundable.

EXCURSIONS

Wednesday, 7 October

You can choose among 6 different excursions that will be organized by Lion Travel on Wednesday afternoon, 7 October 2015. The excursions will depart from the Taipei International Convention Center. Excursions should be pre-booked. Details can be found on the website http://annual66.ise-online.org/excursions.html

All excursions

Include: Bus rental fee (including Tip for driver), English speaking tour guide.
Travel insurance: NT$5,000,000 travel industry liability insurance & NT$200,000 accident medical insurance.
Exclude: Personal expense and meals (Lunch and Dinner)
Special Offer: One bottle of Water and Souvenir
Minimum booking for each tour: 16 persons

1) Tour 1 : Creative Park and Village

Departure from TICC at 13:00
Return at approx 17h10
Price: NTD 1,390 = EUR 40 /per person

2) Tour 2 : Culture of Temples

Departure from TICC at 13:00
Return at approx 17h00
NTD 1,390 = EUR 40 /per person

3) Tour 3 : Culture of Hot Spring

Departure from TICC at 13:00
Return at approx 17h10
NTD 1,390 = EUR 40 /per person

4) Tour 4 : Yingge, Sanxia Ceramics and Temple Tour

Departure from TICC at 13:00
Return at approx 17h00
NTD 1,390 = EUR 40 /per person

5) Tour 5 : Exploring Northern Taiwan ! Jiufen Old Street, Gold Waterfall

Departure from TICC at 13:00
Return at approx 17h00
NTD 1,390 = EUR 40 /per person

6) Tour 6 : Culture of Lanyang, Yilan

Departure from TICC at 13:00
Return at approx 18h00
Price: NTD 1,590 = €43/ per person

Oral presentation program

Monday, 5 October 2015

ROOMS:	101A	101B	101C	101D	102	103	201AB	201EF	201C	201D
SYMPOSIUM	**s05**	**s10**	**s12**	**s02**	**s04**	**s17**	**s03**	**s09**	**s13/s06**	**s16**
08:15 - 09:15	Plenary Lecture: Tomokazu Matsue (Plenary Hall)									
09:30 - 09:50	Katsuhiko Naoi	Guohua Chen	Masa. Osawa	James Rusling	Kenichiro Ota	Zhi-You Zhou	Petr Novak	Piotr Zelenay	Nam-Gyu Park	Olivier Buriez
09:50 - 10:10					Akimitsu Ishihara	Yi-Fan Huang			Xinhua Zhong	J. Juhaniewicz
10:10 - 10:30	G. Zheng Chen	Miguel Sandoval	Ye Wang	Benoît Piro	Ch. Hyuck Choi	Long Huang	Minoru Inaba	Yuto Miyahara	Yu-Tung Yin	R. Daniel Little
10:30 - 10:50	Chinwe Ikpo	Tsu. Hoshino	Kun Jiang	Xing-Hua Xia	Xiaodong Yang	Fabian Kubannek	Yonggang Wang	Federico Tasca	Liang-Che Chen	
10:50 - 11:10	Coffee Break									
11:10 - 11:30	POSTERS SESSION 1									
11:30 - 11:50										
11:50 - 12:10										
12:10 - 12:30										
12:30 - 12:50	Lunch									
12:50 - 13:10									Division Officers Meeting	Regional Repres. Meeting
13:10 - 13:30										
13:30 - 14:00										
14:00 - 14:20	Yury Gogotsi	S. Garcia-Segura	H. Ogasawara	Sean Elliott	Zidong Wei	Karl Mayrhofer	Zemp. Ogumi	Denis Kramer	Chen-Yu Yeh	Rich. McCreery
14:20 - 14:40		Ricardo Salazar		Ross Milton	Hsin-Chih Huang			Shuihua Tang	Hyunwo. Seo	
14:40 - 15:00	E. Frackowiak	N. E. Flores Tapia	K. A. Stoerzinger	Seiya Tsujimura	Jin-Song Hu	Bin Ren	Xuejie Huang	H. Koshikawa	Qingh. Zhang	Ping Yu
15:00 - 15:20	Olivier Crosnier	Ign. González	R. Jinnouchi	Matteo Duca	Tim. Peckham	San. Rondinini	Franz. Mueller	Kotaro Sasaki	Mark. Zukalova	Serge Cosnier
15:20 - 15:40	Christ. Lethien	B. K. Körbahti	Andy Wain	Ad. De Andrade	Dario Dekel	Eric Sorte	Alvin Wu	Ming Zhou	Jinbao Zhang	Pawel Krysinski
15:40 - 16:00	Hiroshi Inoue	Minghua Zhou	M. Figueiredo	Paul Bernhardt	Jingshuai Yang	Sarah Day	Eunseog Cho	YuYe Tong	Kuan-Jiuh Lin	D. Matyszewska
16:00 - 16:20	Abdulc. Yavuz	Ali Farhat	Sunny Hy		Yu Yang	Simon Thiele	Andrew Gewirth	Justus Masa	Ladislav Kavan	Lars Jeuken
16:20 - 16:40	Coffee Break									
16:40 - 17:00	Daniel Bélanger	Yunny Meas	Zhong-Qun Tian	Alain Walcarius	P. Lettenmeier	Mario El Kazzi	Mark Orazem	Atsun. Ikezawa	Peter Deák	Rich. Compton
17:00 - 17:20	Keryn Lian		Masato Tominaga	Elisabeth Lojou	Yeh-Hung Lai	Misun Hong	Wei Kong Pang	Samuel Perry	Flor. Le Formal	
17:20 - 17:40	Yuan Chen	K. Petrov	Shino Sato	Enrico Marsili	Lin Gan	Yosh. Uchimoto	J. M. Paz-Garcia	Lior Elbaz	Pauline Bornoz	Enno Kätelhön
17:40 - 18:00	Peihua Huang	Hui-Wen Lin	Juan M. Feliu	M. Karaskiewicz	Ken. Ozoemena	Neeraj Sharma	Klaus Wedlich	Cl. Zafferoni	Yan-Gu Lin	Marcin Opallo
18:00 - 18:20	Wat. Sugimoto	Olivier Lefebvre	Robert Hillman	Lo Gorton	K. Boni. Kokoh	Hector Abruna	S. Pradanawati	Daniel Scherson	Maur. Schieda	Hua Cui
18:20 - 18:40	Dah-Shy. Tsai	K. Kawaguchi	K. Motobayashi	W. Schuhmann	Wenjing Zhang		Jianbo Zhang	Minhua Shao	Kenji Sakamaki	Fred Lisdat
18:40 - 20:00	Reception									

Monday, 5 October 2015 - Morning

Plenary Lecture

Room : Plenary Hall

Chaired by: Ken-ichiro Ota

08:15 to 09:15

Tomokazu Matsue (WPI-Advanced Institute for Materials Research, Tohoku University, Sendai, Japan)

Electrochemical Imaging with Micro/Nanoelectrode Systems

Symposium 2: Electrochemical Aspects of Biological Systems: Theory, Experiment and Applications

Room : 101D

Chaired by: Renata Bilewicz and Karen Monsalve

09:30 to 10:10 Keynote **Bioelectrochemistry Prize of ISE Division 2**

James Rusling (Chemistry, University of Connecticut, Storrs, USA)

From Protein Film Bioelectrochemistry to Biomedical Devices and Diagnostics

10:10 to 10:30

Benoît Piro (Chemistry, University Paris Diderot, Lab. ITODYS, Ivry-sur-Seine, France), Malika Souada, Steeve Reisberg, Guillaume Anquetin, Vincent Noël, Minh-Chau Pham

Label-free Electrochemical Detection of Prostate-Specific Antigen based on Nucleic Acid Aptamer

10:30 to 10:50

Xing-Hua Xia (School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China)

Manipulation of biomolecular functions at electrode surfaces via surface modification

10:50 to 11:10

Coffee Break

Symposium 3: Batteries for Tomorrow's World

Room : 201AB

Chaired by: Robert Kostecki

09:30 to 10:10 Keynote

Petr Novak (Paul Scherrer Institut, Electrochemical Energy Storage Section, Villigen PSI, Switzerland), Peter Bleith, Rosa Robert, Tsuyoshi Sasaki, Claire Villevieille

How to Understand the Electrochemistry of Battery Materials?

10:10 to 10:30 Invited

Minoru Inaba (Department of Molecular Chemistry and Biochemistry, Doshisha University, Kyotanabe, Japan), Rin Masuhara, Yusuke Shimizu, Michihiro Hashinokuchi, Takayuki Doi

Highly Concentrated Electrolytes for 5-V Cathodes

10:30 to 10:50 Invited **ISE Prize for Applied Electrochemistry**

Yonggang Wang (Department of Chemistry, Fudan University, Shanghai, China), Yongyao Xia

Aqueous Li (or Na)-ion Batteries for Grid-scale Energy Storage

10:50 to 11:10

Coffee Break

Symposium 4: Advances in Fuel Cells from Materials to Systems

Room : 102

Chaired by: Kenichiro Ota

09:30 to 09:50 Invited

Kenichiro Ota (Green Hydrogen Research Center, Yokohama National University, Yokohama, Japan), Koichi Matsuzawa, Shigenori Mitsushima, Akimitsu Ishihara

Challenges of NPGM Oxide Cathode for PEFCs

09:50 to 10:10

Akimitsu Ishihara (Institute of Advanced Sciences, Yokohama National University, Yokohama, Japan), Makoto Hamazaki, Tomoaki Hayashi, Yuko Tamura, Yuji Kohno, Koichi Matsuzawa, Shigenori Mitsushima, Hideto Imai, Kenichiro Ota

Proposal of Oxide-Based Compounds as Non-Platinum Group Metals and Carbon-Free Cathodes for Polymer Electrolyte Fuel Cells

10:10 to 10:30

Chang Hyuck Choi (Department of Interface Chemistry and Surface Engineering, Max-Planck-Institut für Eisenforschung, Düsseldorf, Germany), Karl Mayrhofer

Operando degradation studies of Fe-N-C catalysts in acid electrolyte

10:30 to 10:50

Xiaodong Yang (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China)

Liquid Fuel Cells with Polymer Fiber Membrane and Non-precious Metal Catalysts

10:50 to 11:10

Coffee Break

Symposium 5: Novel Insights to Electrochemical Capacitors

Room : 101A

Chaired by: Chi-Chang Hu

09:30 to 10:10 Keynote

Katsuhiko Naoi (Department of Applied Chemistry, Tokyo University of Agriculture & Technology, Tokyo, Japan)

"Nanohybrid Capacitor" -Future Projection for Gen.II Supercapacitors-

10:10 to 10:30 Invited

George Zheng Chen (Department of Chemical and Environmental Engineering, University of Nottingham Ningbo China, Ningbo, China)

On Combined Capacitive and Nernstian Mechanisms for Improved Electrochemical Energy Storage

10:30 to 10:50

Chinwe Ikpo (Chemistry, University of the Western Cape, Cape Town, South Africa), Ntuthuko Hlongwa, Kenneth Ozoemena, Emmanuel Iwuoha, Natasha Ross, Miranda Ndipingwi, Myra Nzaba, Milua Masikini, Nolubabalo Matinise, Nomxolisi Dywili, Priscilla Baker

Lithium Manganese Phosphate-gold Nanoparticles Composite as an Efficient Lithium Ion Electrochemical Capacitor

10:50 to 11:10

Coffee Break

Symposium 9: Electrocatalytic Materials

Room : 201EF

Chaired by: Kotaro Sasaki

09:30 to 10:10 Keynote

Piotr Zelenay (Materials Physics and Applications Division, Los Alamos National Laboratory, Los Alamos, USA)

Non-Precious Metal Catalysts for Oxygen Reduction: Accomplishments and Challenges

10:10 to 10:30

Yuto Miyahara (Graduate School of Engineering, Kyoto University, Kyoto, Japan), Kohei Miyazaki, Tomokazu Fukutsuka, Takeshi Abe

Catalytic Activities of Perovskite-type Oxide Thin Films and Single Crystals as Oxygen Electrodes in Alkaline Media

10:30 to 10:50

Federico Tasca (Department of Chemistry of Materials, University of Santiago of Chile, Santiago, Chile), Javier Recio, Jose Zagal, Nataly Silva, Carmen Castro, Cesar Zuñiga, Maria Oyarzun

O_2 Reduction at Graphite Electrodes Modified with MN4 Macrocyclic Complexes and Pyridine Grafted Carbon Nanotubes

10:50 to 11:10

Coffee Break

Symposium 10: Electrochemical Technology: New Challenges for a More Competitive Economy

Room : 101B

Chaired by: Geoff Kelsall and Philippe Vernoux

09:30 to 10:10 Keynote

Guohua Chen (Department of Chemical and Biomolecular Engineering, The Hong Kong University of Science and Technolog, Hong Kong, China), Ping Geng

Magnéli Ti_4O_7 Modified Ceramic Membrane for Electrically-assisted Filtration with Antifouling Property

10:10 to 10:30

Miguel Sandoval (Department of Chemical Engineering, University of Guanajuato, Guanajuato, Mexico), Rosalba Fuentes, José L. Nava, Israel Rodríguez

Fluoride Removal from Drinking Water by Electrocoagulation in a Continuous Filter Press Reactor coupled to a Flocculator and Clarifier

10:30 to 10:50

Tsuyoshi Hoshino (Japan Atomic Energy Agency, Japan Atomic Energy Agency, 2-166 Obuch, Omotedate, Rokkasho-mura, Japan)

Development of Lithium Recovery Technique from Seawater by using Innovative Electrodialysis with Lithium Ionic Superconductor

10:50 to 11:10

Coffee Break

Symposium 12: Physical Electrochemistry: Spectroscopic, Structural, and Theoretical Investigations of the Electrified Interface

Room : 101C

Chaired by: Masatoshi Osawa and Ifan Stephens

09:30 to 10:10 Keynote **Brian Conway Prize for Physical Electrochemistry**

Masatoshi Osawa (Catalysis Research Center, Hokkaido University, Sapporo, Japan)

Surface-Enhanced Infrared Absorption Spectroscopy (SEIRAS): Shedding Light on The Electrochemical Interface

10:10 to 10:30

Ye Wang (Department of Chemistry, Fudan University, Shanghai, China), Wen-Bin Cai

Enhanced Electrocatalysis of Ethanol on Dealloyed Pd-Ni-P Film in Alkaline Media: an Infrared Spectroelectrochemical Investigation

10:30 to 10:50

Kun Jiang (Department of Chemistry, Fudan University, Shanghai, China), Sylvain Brimaud, Wen-Bin Cai, R. Jürgen Behm

C1 Molecule Adsorption-Dissociation on Pt and Cu-modified Pt Electrode Surfaces

10:50 to 11:10

Coffee Break

Symposium 13: Molecular Systems for Energy Conversion

Room : 201C

Chaired by: Nam-Gyu Park and Xinhua Zhong

09:30 to 09:50 Invited

Nam-Gyu Park (School of Chemical Engineering and Dept. of Energy Science, Sungkyunkwan University, Suwon, Korea)

Methodologies for 20% Efficient Perovskite Solar Cells

09:50 to 10:10

Xinhua Zhong (Institute of Applied Chemistry, East China University of Science and Technology, Shanghai, China)

Ligand Induced Self-Assembly for High Efficiency Quantum Dot Sensitized Cells

10:10 to 10:30

Yu-Tung Yin (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei City, Taiwan)

Impedance Spectroscopic Analysis of Organic-Inorganic Hybrid Perovskite Solar Cell under Different Architectures

10:30 to 10:50

Liang-Che Chen (Chemical Engineering, National Cheng Kung University, Tainan, Taiwan) Te-Fu Yeh, Chiao-Yi Teng, Hsisheng Teng

Graphene Oxide Quantum Dots for Photon Energy Conversion

10:50 to 11:10

Coffee Break

Symposium 16: Supramolecular Electrochemistry for Analysis, Medicine and Biological Sciences

Room : 201D

Chaired by: Marilia Goulart and Hsien-Chang Chang

09:30 to 09:50 Invited

Olivier Buriez (Ecole Normale Supérieure, CNRS, Paris, France)

Contribution of Electrochemistry to Investigate the Solubilization and Transport Through Suspended Membranes of Redox Active Molecules

09:50 to 10:10

Joanna Juhaniewicz (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Dorota Konarzewska, Michal Jamroz, Slawomir Sek

Application of Natural Cationic Peptides as Potential Antibacterial Agents

10:10 to 10:50 Keynote

R. Daniel Little (Chemistry and Biochemistry, University of California Santa Barbara, Santa Barbara, USA), Seung Joon Yoo, Sebastian Herold, Long-Ji Li, Cheng-Chu Zeng

A Recyclable Reaction Medium: Applications to Oxidative and Reductive Organic Electrochemical Transformations

10:50 to 11:10

Coffee Break

Symposium 17: Novel in Situ in Operando Methods

Room : 103

Chaired by: Michael Eikerling and Ming-Chang Yang

09:30 to 09:50

Zhi-You Zhou (Department of Chemistry, Xiamen University, Xiamen, China), Yu-Hao Hong, Tian Sheng, Jian-Long Lin, Jie Ren, Sheng-Pei Chen, Shi-Gang Sun

Electrooxidation mechanism of NH3 on Pt by in situ FTIR reflection spectroscopy

09:50 to 10:10

Yi-Fan Huang (Chemistry, Leiden University, Leiden, Netherlands), Marc T.M. Koper

In-situ identification of electrochemical oxidation of Pt(111) and Pt(100) by Raman spectroscopy assisted by DFT calculation

10:10 to 10:30

Long Huang (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Eric Sorte, Yuye Tong, Shi-Gang Sun

In-situ 13C NMR spectroscopy study of ethanol electro-oxidation on Pt and PtRu

10:30 to 10:50

Fabian Kubannek (Institute of Energy and Process Systems Engineering, TU Braunschweig, Braunschweig, Germany), Ulrike Krewer

From Quantitative Differential Electrochemical Mass Spectrometry Experiments to Electrochemical Surface Reaction Models

10:50 to 11:10

Coffee Break

Monday, 5 October 2015 - Afternoon

Symposium 2: Electrochemical Aspects of Biological Systems: Theory, Experiment and Applications

Room : 101D

Chaired by: Liza Rassaei, Mei-Jywan Syu and Jan Vacek

14:00 to 14:20 Invited
Sean Elliott (Department of Chemistry, Boston University, Boston, USA), Kathryn Bewley, Evan Judd, Kelly Walsh, Lindsey Walker

Diversity and Electrocatalysis by Multi-heme Cytochromes *c*

14:20 to 14:40
Ross Milton (Department of Chemistry, University of Utah, Salt Lake City, USA), David Hickey, Sofiene Abdellaoui, Koun Lim, Boxuan Tan

Naphthoquinone Derivatives as Low-Potential Electron Mediators of FAD-Dependent Glucose Dehydrogenase

14:40 to 15:00
Seiya Tsujimura (Faculty of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Japan)

Biocathode based on a MgO-template Carbon Electrode Modified with ABTS and Bilirubin Oxidase

15:00 to 15:20
Matteo Duca (Department of Chemistry, University of Oxford, Oxford, United Kingdom), Justin Weeks, Justin Fedor, Joel Weiner, Kylie Vincent

Electrocatalytic cascades driven by enzymes and metal nanoparticles on carbon supports: the reduction of nitrate to ammonia at neutral pH

15:20 to 15:40
Adalgisa De Andrade (Chemistry, FFCLRP/USP, Universidade de São Paulo, Ribeirao Preto, Brazil), Sidney Aquino-Neto, David Hickey, Ross Milton, Shelley Minteer

High Current Density Bioanodes for Ethanol Oxidation using PQQ-dependent Enzymes

15:40 to 16:20 Keynote
Paul Bernhardt (School of Chemistry and Molecular Biosciences, University of Queensland, Brisbane, Australia)

Molybdenum Enzyme Electrochemistry

16:20 to 16:40
Coffee Break

16:40 to 17:00 Invited
Alain Walcarius (LCPME - CNRS, CNRS and Lorraine University, Villers-les-Nancy, France)

Bioelectrocatalysis with sol-gel biocomposite layers deposited onto porous electrodes

17:00 to 17:20
Elisabeth Lojou (BIP-CNRS, CNRS-AMU, Marseille, France), Anne de Poulpiquet, Karen Monsalve, Christian Kjaergaard, Ed Solomon, Nicolas Mano

Thermostable enzymes for biofuel cells: wiring strategies and inhibitor influence

17:20 to 17:40
Enrico Marsili (Singapore Centre on Life Sciences Engineering, Nanyang Technological University, Singapore, Singapore), Abeed Fatima Binti Mohidin Batcha, Kannan Palanisamy, Carlo Santoro, Maria Yung, Thomas Seviour, Jamie Hinks, Federico Lauro

Detection of semivolatile organic compounds (VOCs) in wastewater through current output of electrochemically active bacteria

17:40 to 18:00
Maciej Karaskiewicz (College of Inter-Faculty Individual Studies in Mathematics, University of Warsaw, Warsaw, Poland), Jerzy Rogalski, Renata Bilewicz, Jacek Lipkowski

Probing Laccase Immobilization on Modified Gold Electrodes and Conformational Changes by Surface-Enhanced Infrared Absorption Spectroscopy

18:00 to 18:20
Lo Gorton (Dept. of Biochemistry and Structural Biology, Lund University, Lund, Sweden)

Electrochemical Communication between Photosynthetic Membranes/Cells and Electrodes

18:20 to 18:40
Wolfgang Schuhmann (Analytical Chemistry, Center for Electrochemical Sciences, Ruhr-Universität Bochum, Bochum, Germany), Adrian Ruff, Piyanut Pinyou, Sabine Alsaoub, Fangyuan Zhao, Francesco Lopez, Stefan Barwe, Nikola Markovic, Corina Andronescu, Nicolas Plumeré

Redox polymers @ bioelectrochemistry. From biosensors to biofuel cells and self-powered bioelectrochemical devices

Symposium 3: Batteries for Tomorrow's World

Room : 201AB

Chaired by: Petr Novak

14:00 to 14:40 Keynote
Zempachi Ogumi (Office of Society-Academia Collaboration for Innovation, Kyoto University, Gokasho, Uji, Japan), Hajime Arai, Yoshiharu Uchimoto

Reactions in cathode positive composite electrode by using synchrotron X-ray

14:40 to 15:00 Invited
Xuejie Huang (Institute of Physics, Chinese Academy of Sciences, Beijing, China)

High Voltage Cathode Materials $LiNi_{0.5}Mn_{1.5}O_4$ for Li-ion Batteries

15:00 to 15:20
Franziska Mueller (Helmholtz Institute Ulm, Karlsruhe Institute of Technology, Ulm, Germany), Dominic Bresser, Ulderico Ulissi, Stefano Passerini

Advanced Anode Materials combining Conversion & Alloying Energy Storage Mechanism for Lithium-Ion Batteries

15:20 to 15:40
Alvin Wu (R&D, Underwriters Laboratories Taiwan Co., Ltd., Taipei, Taiwan)

Explore the Failure Mechanism in Lithium-ion Batteries by Forensic Analysis Techniques

15:40 to 16:00
Eunseog Cho (Samsung Advanced Institute of Technology, Samsung Electronics, Suwon, Korea), Kihong Kim, Changhoon Jung, Hyo Sug Lee, Kyoungmin Min, Woo Sung Jeon, Gyeong-Su Park, Jaikwang Shin

The role of the oxygen in the Li_2MnO_3 cathode material for the Li-ion batteries

16:00 to 16:20
Andrew Gewirth (Chemistry, University of Illinois, Urbana, USA)

Electrochemical Stiffness in Lithium Ion Batteries

16:20 to 16:40
Coffee Break

16:40 to 17:00
Mark E. Orazem (Department of Chemical Engineering, University of Florida, Gainesville, USA), Salim Erol

The Influence of Anomalous Diffusion on the Impedance Response of $LiCoO_2$|C Batteries

17:00 to 17:20
Wei Kong Pang (Bragg Institute, Australian Nuclear Science and Technology Organisation, Kirrawee DC, Australia), Vanessa K. Peterson
Characterisation of Electrode Materials for Li-Ion Batteries Using Operando Neutron Powder Diffraction

17:20 to 17:40
Juan Manuel Paz-Garcia (Division of Solid Mechanics, Lund University, Lund, Sweden), Oluwadamilola O. Taiwo, Paul R. Shearing, Donal Finegan, Rajmund Mokso, Erika Tudisco, Matti Ristinmaa, Stephen Hall
Electrochemical-mechanical Coupled Phenomena in Silicon-based Li-ion Batteries Using X-ray Tomographic Characterization

17:40 to 18:00
Klaus Wedlich (Institute of Energy and Climate Research (IEK-3), Forschungszentrum Jülich, Jülich, Germany), Carsten Korte, Detlef Stolten
Investigation of the growth of a SEI-like surface layer on LiNi0.5Mn1.5O4 high voltage cathodes

18:00 to 18:20
Sylvia Ayu Pradanawati (Graduate Institute of Applied Science, National Taiwan University of Science and Technology, Taipei, Taiwan), Fu-Ming Wang
In-Situ Observation of Solid Electrolyte Interphase (SEI) Formation in Electrochemical Surface Plasma Resonance (EC-SPR)

18:20 to 18:40 Invited
Jianbo Zhang (Dept of Automotive Engineering, Tsinghua University, Beijing, China), Jun Huang, Zhe Li
Characterizing Interfacial and Bulk Phase Processes in LIB Using EIS

Symposium 4: Advances in Fuel Cells from Materials to Systems

Room : 102

*Chaired by:*Dario Dekel and Timothy J. Peckham

14:00 to 14:20
Zidong Wei (School of Chemistry and Chemical Engineering, Chongqing University, Chongqing, China), Wei Ding, Li Li, Siguo Chen, Xueqiang Qi
Pt-free Catalyst for Oxygen Reduction Reaction in Fuel Cells

14:20 to 14:40
Hsin-Chih Huang (Department of Materials Science and Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Sun-Tang Chang, Chen-Hao Wang, Li-Chyong Chen, Kuei-Hsien Chen
High Activity Pyrolyzed Iron-FA as Potential Pt-Substitute for Oxygen Reduction Reaction

14:40 to 15:00
Jin-Song Hu (Institute of Chemistry, Chinese Academy of Sciences, Beijing, China), Zidong Wei, Li-Jun Wan
Designing Efficient Nanocatalysts for Oxygen Reduction Reaction

15:00 to 15:20 Invited
Timothy J. Peckham (Department of Chemistry, Simon Fraser University, Burnaby, Canada), Andrew G. Wright, Owen D. Thomas, Mahesh P. Kulkarni, Kristen J.W.Y. Soo, Steven Holdcroft
Membranes with Potential AAEMFC Applications: Structure-Property Relationships of Methylated Poly(benzimidazole)s

15:20 to 15:40 Invited
Dario Dekel (Chemical Engineering, Technion - Israel Institute of Technology, Haifa, Israel)
Review of the Latest Advances and Current Challenges of Anion Exchange Membrane Fuel Cell Technology

15:40 to 16:00

Jingshuai Yang (Department of Chemistry, Northeastern University, Shenyang, China)

Preparation and Properties of PTFE Reinforced Novel Anion Exchange Membranes Based on Silane Crosslinked Imidazolium Containing Poly(2,6-dimethyl-1,4-phenylen oxide)

16:00 to 16:20

Yu Yang (Department of Matarials Science and Technology, Nagaoka University of Technology, Nagaoka, Japan), Sayoko Shironita, Kunio Nakatsuyama, Kenichi Souma, Minoru Umeda

Corrosion Characteristics of Ni-free Nitriding Stainless Steel as Bipolar Plate Material for PEFC

16:20 to 16:40

Coffee Break

16:40 to 17:00

Philipp Lettenmeier (Institute of Engineering Thermodynamics, German Aerospace Center, Stuttgart, Germany), Rainey Wang, Rami Abouatallah, Aldo Saul Gago, Kaspar Andreas Friedrich

Durable MEAs for PEM electrolyser systems operating at high current densities

17:00 to 17:20

Yeh-Hung Lai (Fuel Cell Research and Development, General Motors Company, Pontiac, USA), Corey P Schaffer

Shorting in Proton Exchange Membrane Fuel Cells

17:20 to 17:40

Lin Gan (Division of Energy and Environment, Graduate School at Shenzhen, Tsinghua University, Shenzhen, China), Chunhua Cui, Fabio Dionigi, Peter Strasser

Shaped Pt Bimetallic Nanoparticles: Linking the Anisotropic Growth to the Electrocatalytic Properties

17:40 to 18:00

Kenneth Ozoemena (Materials Science and Manufacturing, Council for Scientific and Industrial Research (CSIR), Pretoria, South Africa)

Novel Pd-Fe-Co Core-Core-Shell Anode Nanocatalyst in Alkaline Anion-Exchange Membrane Alcohol Fuel Cells

18:00 to 18:20

Kouakou Boniface Kokoh (Chemistry, University of Poitiers / IC2MP, Poitiers, France), Roberta Alvarenga Isidoro, Elisabete Inacio Santiago, Nihat Ege Sahin, Teko W. Napporn

Effective Pd-based Electrode Nanomaterials for H_2/O_2 Solid Polymer Electrolyte Fuel Cells

18:20 to 18:40

Wenjing (Angela) Zhang (Department of Energy Conversion and Storage, Technical University of Denmark, Ros, Denmark), Debora Marani, Rafael Hubert Silva, Rebecka Maria Larsen Wercheister, Kent Kammer Hansen, Vincenzo Esposito

Electrospun Nanofiber Catalysts for Green Technology

MONDAY PM

Symposium 5: Novel Insights to Electrochemical Capacitors

Room : 101A

Chaired by: George Zheng Chen, Yury Gogotsi, Kwang-Bum Kim and Katsuhiko Naoi

14:00 to 14:40 Keynote

Yury Gogotsi (Drexel University, Materials Science and Engineering, A.J. Drexel Nanomaterials , Philadelphia, USA)

Two-Dimensional Materials and Electrode Architectures for Capacitive and Pseudocapacitive Energy Storage

14:40 to 15:00 Invited

Elzbieta Frackowiak (Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Poznañ, Poland), Adam Kolodziej, Krzysztof Fic

Towards Green Aqueous Capacitors with Chitin as Binder

15:00 to 15:20

Olivier Crosnier (CNRS - IMN, University of Nantes, Nantes, France), Nicolas Goubard, Frédéric Favier, Christophe Payen, Philippe Leone, Thierry Brousse

$FeWO_4$ as a new high volumetric capacitance material for aqueous electrochemical supercapacitors

15:20 to 15:40

Christophe Lethien (IEMN - RS2E, Université Lille, Villeneuve d'ascq, France), Kevin Brousse, Etienne Eustache, Peihua Huang, Camille Douard, Barbara Daffos, Pierre Louis Taberna, Jean Le Bideau, Thierry Brousse, Patrice Simon

On chip 3D pseudocapacitive and carbon based electrochemical microsupercapacitors at the wafer level

15:40 to 16:00

Hiroshi Inoue (Applied Chemistry, Osaka Prefecture University, Sakai, Japan), Kentaro Konishi, Eiji Higuchi, Masanobu Chiku

Electrochemical Characterization of an Aqueous Hybrid Capacitor with Zinc and Activated Carbon Electrodes

16:00 to 16:20

Abdulcabbar Yavuz (Department of Chemistry, University of Leicester, Leicester, United Kingdom), Robert Hillman, Karl S. Ryder

Ion Exchange Optimization of Polyaniline Films in Deep Eutectic Solvents for Supercapacitor Application

16:20 to 16:40

Coffee Break

16:40 to 17:00 Invited

Daniel Bélanger (Chimie, Université du Québec à Montréal, Montréal, Canada), Galyna Shul

New materials for electrochemical capacitors

17:00 to 17:20 Invited

Keryn Lian (Department of Materials Science and Engineering, University of Toronto, Toronto, Canada), Matthew Genovese, Yeewei Foong

Design and Modification of Inorganic/Organic Polyoxometalates-Carbon Pseudocapacitive Electrodes

17:20 to 17:40 Invited

Yuan Chen (School of Chemical and Biomedical Engineering, Nanyang Technological University, Singapore, Singapore)

Micro-supercapacitors based on carbon hybrid fibers

17:40 to 18:00

Peihua Huang (CIRIMAT, Université Paul Sabatier, Toulouse, France), Kevin Brousse, Christophe Lethien, Marc Respaud, Yury Gogotsi, Pierre-Louis Taberna, Patrice Simon

On-chip Carbide Derived Carbon Thin Films for Microsupercapacitors

18:00 to 18:20 Invited

Wataru Sugimoto (Center for Energy and Environmental Science, Shinshu University, Ueda, Japan), Sho Makino

Pseudocapacitance of ruthenium oxide in buffered solutions

18:20 to 18:40

Dah-Shyang Tsai (Chemical Engineering Department, National Taiwan University of Science and Technology, Taipei, Taiwan)

Structure and Capacity of a Tin-Copper-CNT Composite Anode and its Lithium Ion Hybrid Capacitor Performance

Symposium 6: New Progress in Electrochemical Solar Cells

Room : 201C

Chaired by: Kuei-Hsien Chen, Ib Chorkendorff, Florian Le Formal and Chen-Yu Yeh

14:00 to 14:20 Keynote

Chen-Yu Yeh (Chemistry, National Chung Hsing University, Taichung, Taiwan)

Recent Progress of Porphyrin-Sensitized Solar Cells

14:20 to 14:40

Hyunwoong Seo (Information Science and Electrical Engineering, Kyushu University, Fukuoka, Japan), Min-Kyu Son, Shinji Hashimoto, Naho Itagaki, Kazunori Koga, Masaharu Shiratani

Novel polymer counter electrode of dye-sensitized solar cells

14:40 to 15:00

Qinghong Zhang (State Key Laboratory for Modification of Chemical Fibers, Donghua University, Shanghai, China)

Some Chemical Routes to Form Compact Films of Dye-sensitized Solar Cells

15:00 to 15:20

Marketa Zukalova (Electrochemical Materials, J. Heyrovsky Institute of Physical Chemistry, AS CR, Prague, Czech Republic), Ladislav Kavan, Milan Bousa, Zdenek Bastl, David Havlicek

Sol-gel TiO_2 blocking layers for dye-sensitized and perovskite solar cells: Electrochemical properties and electrochemical doping

15:20 to 15:40

Jinbao Zhang (Chemistry, Uppsala University, Uppsala, Sweden), Nick Vlachopoulos, Erik Johansson, Mohamed Jouini, Gerrit Boschloo, Anders Hagfeldt

In-situ Photoelectrochemical Polymerization Approach For Efficient Solid-state Dye Sensitized Solar Cells

15:40 to 16:00

Kuan-Jiuh Lin (Department of Chemistry, National Chung-Hsing University, Taichung, USA), Yin-Cheng Yen

Plasmon-Induced Efficiency Enhancement on Dye-Sensitized Solar Cell by a TNW-AuNP Layer

16:00 to 16:20

Ladislav Kavan (Electrochemical Materials, J. Heyrovsky Institute of Physical Chemistry, Prague 8, Czech Republic), Zuzana Vlckova-Zivcova, Hana Krysova, Petr Cigler, Paul Liska, Shaik M. Zakeeruddin, Michael Grätzel

Novel Cathode and Photocathode Materials for Dye-Sensitized Solar Cells

16:20 to 16:40

Coffee Break

16:40 to 17:00 Invited

Peter Deák (BCCMS, University of Bremen, Bremen, Germany), Jolla Kullgren, Balint Aradi, Thomas Frauenheim, Ladislav Kavan

Resolving the Controversy about the Band Alignment between Rutile and Anatase: the Role of OH^{-}/H^{+} Adsorption

17:00 to 17:20 Invited

Florian Le Formal (Institute of Chemical Science and Engineering (LIMNO), Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland), Mathieu Prévot, Xiaoyun Yu, Wiktor S. Bourée, Nestor Guijarro, Kevin Sivula

Solution-Processed Nanostructured p-type Photocathodes for Solar Hydrogen Production

17:20 to 17:40

Pauline Bornoz (Institute of Chemistry and Chemical Engineering, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland), Mathieu Prévot, Xavier Jeanbourquin, Kevin Sivula

An Organic Semiconductor as a Photoanode for Solar Water Splitting

17:40 to 18:00

Yan-Gu Lin (Scientific Research Division, National Synchrotron Radiation Research Center, Hsinchu, Taiwan), Hong-Jhe Lin, Yu-Chang Lin

Earth-Abundant Materials for Photocatalytic Water splitting

18:00 to 18:20

Mauricio Schieda (Institute of Materials Research, Helmholtz-Zentrum Geesthacht, Geesthacht, Germany), Herman Kriegel, Iris Herrmann-Geppert, Aafke C. Bronneberg, Deirdre L. Olynick, Thomas Klassen

Solar Water Splitting With Nanoimprinted Model Photoelectrodes

18:20 to 18:40

Kenji Sakamaki (Department of Chemistry, Fukushima College, National Institute of Technology, Iwaki, Japan), Ryoko Kato, Haruka Endo, Masataka Sato, Yoichi Kamo

Photoelectrochemical Zero Bias Hydrogen Generation with a Novel Three Compartment Cell for Decreasing Theoretical and Total Water Electrolysis Voltage (10)

Symposium 9: Electrocatalytic Materials

Room : 201EF

Chaired by: Chia-Ying Chiang, Daniel Scherson, Atsushi Iwanaga and YuYe Tong

14:00 to 14:20 Invited

Denis Kramer (Engineering Materials, University of Southampton, Southampton, United Kingdom), Tobias Binninger, Emiliana Fabbri, Thomas Justus Schmidt

Theoretical Thoughts on Electronic Interactions between Metallic Electrocatalysts and Oxide Supports

14:20 to 14:40

Shuihua Tang (School of Materials Science and Engineering, Southwest Petroleum University, Chengdu, China), Haixin Huangfu, Yuxiao Deng, Leping Sui, Zhen Dai, Zhentao Zhu, Xiaolong Qin, Jiawei Yuan

High-Performance Electrocatalyst for Oxygen Reduction Derived from Riboflavin and Iron

14:40 to 15:00

Hiroyuki Koshikawa (Department of Applied Chemistry, The University of Tokyo, Tokyo, Japan), Kazuhide Kamiya, Shuji Nakanishi, Kazuhito Hashimoto

Heat-treated 3,5-diamino-1,2,4-triazole/graphene Hybrid Functions as an Oxygen Reduction Electrocatalyst with High Activity and Stability

15:00 to 15:20

Kotaro Sasaki (Chemistry Department, Brookhaven National Laboratory, Upton, USA), Kurian Kuttiyiel, Dong Su, Lijun Wu, Yimei Zhu, Radoslav Adzic

Gold-promoted structurally ordered intermetallic palladium cobalt nanoparticles for the oxygen reduction reaction

15:20 to 15:40

Ming Zhou (Chemistry, The University of Hong Kong, Hong Kong, China), Kwong-Yu Chan

Highly Active and Stable Iron-nitrogen-doped Carbon with Hollow-core-mesoporous-shell (HCMS) Structure for Oxygen Reduction Reaction

15:40 to 16:00

YuYe Tong (Chemistry, Georgetown University, Washington, USA), Yanyan Wang

Unexpected Good Deed of a Traditional Poison: Sulfur-Adsorption Enhanced Activity and Stability of Pt for Oxygen Reduction Reaction

16:00 to 16:20

Justus Masa (Analytical Chemistry and Center for Electrochemical Sciences, Ruhr-Universitaet Bochum, Bochum, Germany), Wei Xia, Anqi Zhao, Martin Muhler, Wolfgang Schuhmann

Electrocatalysis of oxygen reduction and water oxidation using metal oxides embedded in nitrogen-doped carbon

16:20 to 16:40

Coffee Break

16:40 to 17:00

Atsunori Ikezawa (Graduate School of Engineering, Kyoto University, Kyoto, Japan), Kohei Miyazaki, Tomokazu Fukutsuka, Takeshi Abe

Investigations of Triple Phase Boundary Regions in Bifunctional Air Electrodes Using Partially Immersed Platinum Electrodes

17:00 to 17:20

Samuel Perry (Chemistry, University of Southampton, Southampton, United Kingdom), Guy Denuault

Determination of Oxygen Binding Energy from Simple Amperometric Experiments and its Application Towards the Evaluation of Novel Materials for the Oxygen Reduction Reaction

17:20 to 17:40

Lior Elbaz (Chemistry, Bar Ilan University, Ramat-Gan, Israel), Zeev Gross, Naomi Levi, Atif Mahammed

Electroreduction of Oxygen with Brominated Metallo-Corroles

17:40 to 18:00

Claudio Zafferoni (Department of Chemistry Ugo Schiff, University of Florence, Florence, Italy), Giulia Tuci, Giuliano Giambastiani, Massimo Innocenti

Bimetallic catalysts and metal-free catalysts for ORR

18:00 to 18:20

Daniel Scherson (Chemistry, Case Western Reserve University, Cleveland, USA), Adriel Jebaraj, Nicholas Georgescu

On The Effects of Bromide Adsorption on the Rates of Redox Reactions

18:20 to 18:40 Invited

Minhua Shao (Department of Chemical and Biomolecular Engineering, Hong Kong University of Science and Technology, Hong Kong, China)

Size, Shape and Morphology Effects on Catalytic Activity of Oxygen Reduction Reaction

Symposium 10: Electrochemical Technology: New Challenges for a More Competitive Economy

Room : 101B

Chaired by: Guohua Chen and Onofrio Scialdone

14:00 to 14:20 Invited **ISE Prize for Environmental Electrochemistry**

Sergi Garcia-Segura (Chemistry, Universidade Federal do Rio Grande do Norte, Natal, Brazil), Enric Brillas

Electrochemical Processes Based on Fenton's Reaction for Wastewater Treatment. An Eco-Friendly, Efficient and Affordable Technology: Then, Now and Tomorrow

14:20 to 14:40 Invited

Ricardo Salazar (Química de los Materiales, Universidad de Santiago de Chile, Santiago, Chile)

Remediation of bovine slurry wastewater using electrochemical advances oxidation process.

14:40 to 15:00

Nelly Esther Flores Tapia (Quimica Física, University of Barcelona, Barcelona, Spain), Enric Brillas, Ignasio Sirés, Pere Cabot, Rosa Rodríguez, José Garrido, Francisco Centellas

Comparison of trans-cinnamic and trans-ferulic acids degradation by advanced oxidation processes

15:00 to 15:20 Invited

Ignacio González (Universidad Autónoma Metropolitana-Iztapalapa.Chemistry, México, Mexico), Odín Rodríguez-Nava, Miguel Angel Arellano-González, Anne Claire Texier

Removal of emerging pollutants and biodegradable organic matter from wastewater by combined electrochemical -biological processes

15:20 to 15:40 Invited

Bahadir K. Körbahti (Mersin University, Chemical Engineering Department, Mersin University, Mersin, Turkey)

Electrochemical Processes for Green Environment: the emerging technology in wastewater treatment

15:40 to 16:00 Invited

Minghua Zhou (College of Environmental Science and Engineering, Nankai University, Tianjin, China), Liang Ma, Weilu Yang, Gengbo Ren, Fangke Yu

Flow-though Electrochemical Cells for Efficient Dye Removal

16:00 to 16:20

Ali Farhat (Advanced Water Management Centre, University of Queensland, Brisbane, Australia), Stephan Tait, Jurg Keller, Jelena Radjenovic

Role of Sulfate and Persulfate Ions in Electrochemical Oxidation of Persistent Organics at a Boron-doped Diamond Anode

16:20 to 16:40

Coffee Break

16:40 to 17:20 Keynote

Yunny Meas (Research and Development, CIDETEQ , Pedro Escobedo, Mexico), Alejandro Medel, Georgina Zuñiga, José A. Ramírez

Novel Electrochemical Prototype for the Treatment of Spent Caustic from Hydrocarbon Industry and its Industrial Scaling

17:20 to 17:40

Konstantin Petrov (Electrocatalysis, IEES-BAS, Sofia, Bulgaria), Venko Beshkov, Elena Razkazova, Djamal Uzun

A method for the simultaneous cleansing of H_2S and SO_2

17:40 to 18:00

Hui-Wen Lin (Advanced Water Management Centre, The University of Queensland, Brisbane, Australia), Korneel Rabaey, Jurg Keller, Zhiguo Yuan, Ilje Pikaar

Simultaneous scaling-free electrochemical production of caustic and oxygen from domestic wastewater for sulfide control in sewers

18:00 to 18:20
Olivier Lefebvre (Department of Civil and Environmental Engineering, National University of Singapore , Singapore, Singapore), Emmanuel Mousset, Muhammad Syafiq Bin Ahmad, Zuxin Wang
Graphene-based electrodes: a new promising material for a more competitive electro-Fenton technology

18:20 to 18:40
Kenji Kawaguchi (Organization for Research Initiatives and Development, Doshisha University, Kyo-tanabe, Kyoto, Japan), Masatsugu Morimitsu
Reaction Selectivity of IrO_2-Ta_2O_5 Nano-Amorphous Hybrid Catalysts for Oxygen Evolution and Metal Oxide Deposition

Symposium 12: Physical Electrochemistry: Spectroscopic, Structural, and Theoretical Investigations of the Electrified Interface

Room : 101C

Chaired by: Hirohito Ogasawara, Kelsey A. Stoerzinger and Juan M. Feliu

14:00 to 14:40 Keynote
Hirohito Ogasawara (2SUNCAT ctr for Interface Science and Catalysis, SLAC National Accelerator Laboratory, Menlo Park, USA), Daniel Friebel, Anders Nilsson
Operando X-ray Studies of Electrocatalysis

14:40 to 15:00 Invited
Kelsey A. Stoerzinger (Department of Materials Science & Engineering, Massachusetts Institute of Technology, Cambridge, USA), Wesley T. Hong, Yueh-Lin Lee, Livia Giordano, Yang Shao-Horn
Molecular Insight into Wetted Oxide Surfaces and Oxygen Electrocatalysis

15:00 to 15:20 Invited
Ryosuke Jinnouchi (Material Design Lab., Toyota Central R&D Labs., Inc., Nagakute, Japan), Kensaku Kodama, Eishiro Toyoda, Kenji Kudo, Naoki Kitano, Naoki Hasegawa, Yu Morimoto
Atomistic Simulations for Designing High-Performance Electrode Materials for Polymer Electrolyte Fuel Cells

15:20 to 15:40
Andy Wain (Materials Division, National Physical Laboratory, Teddington, United Kingdom)
Mapping Oxygen Reduction at Individual Nanostructures Using High-Resolution Electrochemical-Topographical Imaging

15:40 to 16:00
Marta Figueiredo (Leiden Institute of Chemistry, Leiden University, Leiden, Netherlands), Marc T.M. Koper
CO_2 electroreduction products and intermediates in organic solvents

16:00 to 16:20
Sunny Hy (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Felix Felix, Bing-Joe Hwang
Designing In Situ Solid Electrolyte Interphase Studies using Surface-enhanced Raman Spectroscopy

16:20 to 16:40
Coffee Break

16:40 to 17:00
Zhong-Qun Tian (Chemistry Department, Xiamen University, Xiamen, China), Meng Zhang, William Valenzuela, Runwen Yan, Songyuan Ding, Juan Perez, De-Yin Wu, Bingwei Mao, Juan M. Feliu,
Extending Shell-isolated Nanoparticle-enhanced Raman Spectroscopy to Study Ordered/Disordered

Adsorption of (Bi)sulfate on Au Single Crystal Electrodes

17:00 to 17:20
Masato Tominaga (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Yudai Nagahama, Yuto Yatsugi

Raman Spectroscopic Detection of Electrochemical Oxidative Reaction of Single-Walled Carbon Nanotubes

17:20 to 17:40
Shino Sato (Department of Chemistry, Faculty of Science, Hokkaido University, Sapporo, Japan), Kohei Uosaki, Kei Murakoshi, Katsuyoshi Ikeda

Interface control in a chemically modified electrode for overpotential reduction

17:40 to 18:00
Juan M. Feliu (Physical Chemistry, University of Alicante, Alicante, Spain), Paula Sebastian, Ricardo Martinez-Hincapie, Andrea Sandoval, Victor Climent

Laser induced temperature jump investigation of the interface between Pt single crystals in contact with ionic liquids

18:00 to 18:20
Robert Hillman (Department of Chemistry, University of Leicester, Leicester, United Kingdom), Rachel Sapstead, Virginia Ferreira, Karen Smith, Karl S. Ryder, Emma Smith, Nina-Juliane Steinke, Robert Dalgliesh

Dynamic In Situ Neutron Reflectivity Studies of Metal Electrodeposition and Alloy Formation in Ionic Liquid Media

18:20 to 18:40
Kenta Motobayashi (Catalysis Research Center, Hokkaido University, Sapporo, Japan), Kazuya Minami, Ken-ichi Uchida, Naoya Nishi, Tetsuo Sakka, Masatoshi Osawa

Potential-Dependent Behavior of Ionic Liquid [BMIM][TFSA] with Additives on a Gold Electrode Studied by Surface-Enhanced Infrared Absorption Spectroscopy

Symposium 16: Supramolecular Electrochemistry for Analysis, Medicine and Biological Sciences

Room : 201D

Chaired by: Stephane Arbault and Olivier Buriez

14:00 to 14:40 Keynote
Richard McCreery (Department of Chemistry, University of Alberta, Edmonton, Canada), Adam Bergren, Nikola Pekas, Oleksii Ivanshenko, Jerry Fereiro, Bryan Szeto

Charge Transport Through Molecules Acting as “Supramolecular” Electronic Devices

14:40 to 15:00
Ping Yu (Institute of Chemistry, Chinese Academy of Sciences, Beijing, China), Lanqun Mao

Imidazolium-Based Supramolecular Ionic Material and Its Application in Biosensing and Electronic Device

15:00 to 15:20 Invited
Serge Cosnier (Department of Molecular Chemistry, Grenoble Alpes University-CNRS, Grenoble, France)

Supramolecular Biological Assemblies for Biosensors and Biofuel Cells

15:20 to 15:40
Pawel Krysinski (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Dorota Nieciecka, Aleksandra Joniec

Magnetic Nanoparticles and Magnetoliposomes as Anticancer Drug Carriers

15:40 to 16:00
Dorota Matyszewska (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Renata Bilewicz, Jan Biernat

Interactions of Anticancer Drug and Adducts of the Drug with Carbon Nanotubes with Model Biological Membranes – Langmuir-Blodgett and Electrochemical Studies

16:00 to 16:20 Invited
Lars Jeuken (School of Biomedical Sciences, University of Leeds, Leeds, United Kingdom)
Lipid-Membrane Modified Electrodes to Study Respiratory Membrane Enzymes and their Complexes in a Native-Like Lipid Environment

16:20 to 16:40
Coffee Break

16:40 to 17:20 Keynote
Richard Compton (Chemistry, Oxford University, Oxford, United Kingdom)
Nano Impacts: Recent Advances

17:20 to 17:40
Enno Kätelhön (Department of Chemistry, Physical and Theoretical Chemistry, University of Oxford, Oxford, United Kingdom), Shaltiel Eloul, Christopher Batchelor-McAuley, Kristina Tschulik, Richard Compton
First-Passage Statistics in Nanoelectrochemistry: Applications to Nano-Impacts

17:40 to 18:00 Invited
Marcin Opallo (Department of Electrode Processes, Institute of Physical Chemistry Polish Academy of Sciences, Warszawa, Poland), Joanna Dolinska, Palanisamy Kannan, Volodymyr Sashuk, Janusz Sobczak, Zbigniew Kaszkur, Wojciech Lisowski, Martin Jonsson Niedziolka
Electrocatalytic glucose oxidation in suspension and film consisting charged Au and Pt nanoparticles

18:00 to 18:20
Hua Cui (Department of Chemistry, University of Science and Technology of China, Hefei, China), Hongli Zhang, Zhili Han
One-step Supermolecule Assembly of N-(aminobutyl)-N-(ethylisoluminol) Functionalized Gold Nanodots on Multiwalled Carbon Nanotubes and Their Applications to Sensors

18:20 to 18:40
Fred Lisdat (Biosystems Technology, Institute of Applied Life Sciences, Technical University Wildau, Wildau, Germany), S. Feifel, R. McGovern, P. Crowley, Roland Ludwig
Artificial protein architectures on electrodes

Symposium 17: Novel in Situ in Operando Methods

Room : 103

Chaired by: Fu-Ming Wang and Patrick Unwin

14:00 to 14:40 Keynote
Karl Mayrhofer (Department of Interface Chemistry and Surface Engineering, Max-Planck-Institut for Iron Research, Düsseldorf, Germany), Serhiy Cherevko, Jan-Philip Grote, Chang-Hyuck Choi, Aleksandar Zeradjanin, Nejc Hodnik, Claudio Baldizzone, Simon Geiger
In-situ investigation of catalyst degradation

14:40 to 15:00
Bin Ren (Department of Chemistry, Xiamen University, Xiamen, China), Cheng Zong, Chanjuan Chen, Meng Zhang
Electrochemical Surface-Enhanced Raman Microscopy (EC-SERM)

15:00 to 15:20
Sandra Rondinini (Department of Chemistry, Università degli Studi di Milano, Milano, Italy), Paolo Ghigna, Elisabetta Achilli, Alberto Vertova, Cristina Locatelli, Francesco D'Acapito
Combined Ionic Diffusion and Faradaic Reactions in Electrodeposited Highly Hydrated Amorphous Iridium Oxide by in-operando Dispersive XAS Investigation

15:20 to 15:40

Eric Sorte (Department of Chemistry, Georgetown University, Washington DC, USA), YuYe Tong

Innovations in In situ Electrochemical Nuclear Magnetic Resonance

15:40 to 16:00

Sarah Day (Diamond Light Source, Diamond Light Source, Didcot, United Kingdom), Annabelle Baker, Chiu Tang

A Long Duration Experiment Facility for the Study of Battery Materials Using In Situ Synchrotron X-Ray Powder Diffraction

16:00 to 16:20

Simon Thiele (Institute of Microsystems Engineering (IMTEK), University of Freiburg, Freiburg, Germany)

Multi-scale tomographic analysis of fuel cells, batteries and electrolyzers

16:20 to 16:40

Coffee Break

16:40 to 17:00

Mario El Kazzi (Electrochemical Energy Storage Section (PSI), Paul Scherrer Institut (PSI), Villigen, Switzerland), Daniel Streich, Petr Novak

Complementary Operando XPS and Raman Spectroscopy of Ggraphite Cycled in Ionic Liquids

17:00 to 17:20

Misun Hong (Byon Initiative Research Unit (IRU), RIKEN, Wako, Japan), Hee Cheul Choi, Hye Ryung Byon

In Situ Visualization of Li_2O_2 Decomposition for a Li–O_2 Battery Using Electrochemical Atomic Force Microscopy (ECAFM)

17:20 to 17:40

Yoshiharu Uchimoto (Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, Japan), Yuki Orikasa

Operando synchrotron X-ray analysis for investigation of electrode property of lithium ion battery cathode

17:40 to 18:00

Neeraj Sharma (School of Chemistry, UNSW Australia, Sydney, Australia)

The time and current-resolved evolution of sodium location and distribution in electrodes of sodium-ion batteries

18:00 to 18:40 Keynote

Hector Abruna (Chemistry and Chemical Bilogy, Cornell University, Ithaca, USA)

Operando Methods for the Characterization Energy Materials

Tuesday, 6 October 2015

ROOMS:	101A	101B	101C	101D	102	103	201AB	201EF	201C	201D	S.Lounge
SYMPOSIUM	**s05**	**s10**	**s12**	**s02**	**s04/s15**	**s7/s01**	**s03**	**s09**	**s06/s03**	**s16/s08**	**s15**
08:15 - 09:15	Plenary Lecture: Hongjie Dai (Plenary Hall)										
09:30 - 09:50	Kwang-Bum Kim	Geoff Kelsall	Enrique Herrero	Dechen Jian	S. Kumaraguru	Nikolay Dimitrov	George Crabtree	Jong-Sung Yu	Ib Chorkendorff	Renata Bilewicz	F. Sauvage
09:50 - 10:10			I. Katsounaros	T. Yasukawa					Kuei-Hsien Chen	Olga Swiech	Hye Jin Lee
10:10 - 10:30	D. Rochefort	A. d. I. Consuegra	Jian-Feng Li	Christine Kranz	Alexandra Patru	Natasa Vasiljevic	Fabio La Mantia	Candice Rassie	Marcel Schreier	Alexander Kuhn	F. Sekli Belaidi
10:30 - 10:50	Tavo Romann	Jesus Iniesta	A. Mukkannan		Maxi Frei	S. Brankovic	Yuping Wu	Yan-Xia Jiang	Yi-June Huang		Ivan Kondov
10:50 - 11:10	Coffee Break										
11:10 - 11:30	POSTERS SESSION 2										
11:30 - 11:50											
11:50 - 12:10											
12:10 - 12:30											
12:30 - 12:50	Lunch										
12:50 - 13:10							Council Meeting				
13:10 - 13:30											
13:30 - 14:00											
14:00 - 14:20	Etsuro Iwama	Javier Llanos	Jan Rossmeisl	Lanqun Mao	Bongjin Simon Mun	Osamu Niwa	Takeshi Abe	Dangsheng Su	Yi Cui	Oliver Chyan	
14:20 - 14:40	Wan-Yu Tsai	Henry Bergmann					M. V. Reddy	Kamiya Kazuhide	D. Batyrbekuly	Jun-Seob Lee	
14:40 - 15:00	Tu-Ting Weng	Onofrio Scialdone	Katharina Krischer	Shen-Ming Chen	Byungchan Han	Andreas Lesch	Shujiang Ding	Deli Wang	Xiaogang Zhang	Peter Keech	
15:00 - 15:20	Chung-Ting Tsai	Emmanuel Mousset	A. Bandarenka	Nicolas Mano	G. Ramos-Sanchez	S. Chandra	Alejandro A. Franco	Bart Geboes	A. Mentbayeva	Xavier Feaugas	
15:20 - 15:40	Krzysztof Fic	Tsuyoshi Ochiai	F. Calle-Vallejo	Stephane Arbault	Trung Van Nguyen	S. Daniele	A. Lewandowski	Ifan Stephens	Heng-Liang Wu	D. Veys-Renaux	
15:40 - 16:00	Laura Coustan	Philippe Vernoux	Ali Malek	Libuse Trnkova	Tetsuya Mashio	Yukihiro Shintani	A. Ponrouch	Silver Sepp	Jason Fang	Hans-H. Strehblow	
16:00 - 16:20	Pawel Jezowski	C. A. Martinez-Huit.		A-M Oliveira-B.			Kolja Beltrop		Matthew Lacey		
16:20 - 16:40	Coffee Break										
16:40 - 17:00	Yongyao Xia	Takayuki Homma	S. Panahian Jand	A. Bondarenko	Daniel Brandell	Jyh-Myng Zen	Atsuo Yamada	Sandra Temmel	Yong Yang	Nadine Pebere	
				Daliborka Jambrec							
17:00 - 17:20	Frédéric Favier	Priscilla Baker	Qingli Zou	Vera Essmann	Christine Frayret	Grzegorz Lisak		Kensaku Kodama	Arianna Moretti	I-Wen Huang	
				Karen Monsalve							
17:20 - 17:40	Soo-Gil Park	Nick Daems	Shen Ye	Shajahan Siraj	P. Kaghazchi	Christopher Brett	Shirley Meng	Qingli Hao	Elie Paillard	Hiroaki Tsuchiya	
				Bongkyu Kim							
17:40 - 18:00	Soshi Shiraishi	G. Martin Haarberg	Ove Oll	Rachel Gao	Yinghui Yin	Ch. A. Gunawan	Jie Li	Gert Göransson	N. Bonnet-M.	Koji Fushimi	
				Chun-Hao Su							
18:00 - 18:20	Jong-Huy Kim	Tom Breugelmans	Matej Velicky	Yung-Chun Lin	Seunghwa Lee	M. Castaño-Á.	Ha-Kyung Roh	Adriano Gomes	Satoshi Fujiki	Khurram Shahzad	
				Xiaochun Tian							
18:20 - 18:40	JunHui Jeong	C. M Fernandez M.	Katsuyoshi Ikeda	Makoto Togami	Hyungjun Kim		Masashi Okubo	Pawel J. Kulesza	Yuebin Yang	Pei-Yu Lai	

20:00	Chinese Opera	

Tuesday, 6 October 2015 - Morning

Plenary Lecture

Room : Plenary Hall

Chaired by: Bing Joe Hwang

08:15 to 09:15

Hongjie Dai (Stanford University, Stanford, USA)

Novel Materials for Renewable Energy

Symposium 2: Electrochemical Aspects of Biological Systems: Theory, Experiment and Applications

Room : 101D

Chaired by: Sofiene Abdellaoui and Vera Essmann

09:30 to 09:50

Dechen Jiang (School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China)

Luminol Electrochemical-luminescence for Single Cell Analysis

09:50 to 10:10

Tomoyuki Yasukawa (Graduate School of Material Science, University of Hyogo, Ako, Japan), Yuki Minakuchi, Hironobu Hatanaka, Fumio Mizutani

Negative dielectrophoretic separation of cells based on the expression of specific surface antigen

10:10 to 10:50 Keynote

Christine Kranz (Institute of Analytical and Bioanalytical Chemistry, University of Ulm, Ulm, Germany), Corinna Frey, Alexander Eifert, Holger Barth, Boris Mizaikoff

Investigation of pore forming proteins in supported lipid membranes

10:50 to 11:10

Coffee Break

Symposium 3: Batteries for Tomorrow's World

Room : 201AB

Chaired by: Atsuo Yamada

09:30 to 10:10 Keynote

George Crabtree (Joint Center for Energy Storage Research (JCESR), Argonne National Laboratory, Argonne, USA)

The Joint Center for Energy Storage Research (JCESR): A New Paradigm for Energy Storage Research

10:10 to 10:30 Invited **Hans-Jürgen Engell Prize**

Fabio La Mantia (Analytical Chemistry, Ruhr-Universität Bochum, Bochum, Germany)

Aqueous Zinc-Ion Batteries based on Prussian Blue Derivatives

10:30 to 10:50

Yuping Wu (College of Energy, Nanjing Tech University, Nanjing, China), Zheng Chang, Yanfang Wang

New Concept Aqueous Rechargeable Batteries with High Energy Densities

10:50 to 11:10

Coffee Break

Symposium 4: Advances in Fuel Cells from Materials to Systems

Room : 102

Chaired by: Hiroyuki Uchida

09:30 to 10:10 Keynote

Swami Kumaraguru (Fuel Cell Activities, General Motors, Pontiac, USA), Jingxin Zhang, Wenbin Gu, Balsu Lakshmanan, Mark Mathias

PEMFC Cathode Performance and Durability Challenges at Low Platinum Loading

10:10 to 10:30

Alexandra Patru (Electrochemistry Laboratory, Paul Scherrer Institut, Villigen, Switzerland), Johannes Biesdorf, Antoni Forner Cuenca, Emiliana Fabbri, Pierre Boillat, Thomas Justus Schmidt

Performance and Stability of New Oxide Catalyst Supports under PEFC Operating Conditions

10:30 to 10:50

Maxi Frei (IMTEK, Department of Microsystems Engineering, University of Freiburg, Freiburg, Germany), Johannes Erben

Fabrication of platinum electrodes with high roughness factor using a 3D-support

10:50 to 11:10

Coffee Break

Symposium 5: Novel Insights to Electrochemical Capacitors

Room : 101A

Chaired by: Masashi Ishikawa

09:30 to 10:10 Keynote

Kwang-Bum Kim (Department of Material Science and Engineering, Yonsei University, Seoul, Korea), Sang-Hoon Park, Hyun-Kyung Kim, Hee Chang Youn, Myeong-Seong Kim, Suk-Woo Lee

Graphene-based Nanomaterials for Energy Storage Devices

10:10 to 10:30

Dominic Rochefort (Chemistry, Universite de Montreal, Montreal, Canada), Han Jin Xie, Bruno Gelinas

On the Performance and Self-Discharge of a Redox-Active Electrolyte Supercapacitor Based on an Ionic Liquid Modified with Ferrocene

10:30 to 10:50

Tavo Romann (Institute of Chemistry, University of Tartu, Tartu, Estonia), Erik Anderson, Ove Oll, Piret Pikma, Enn Lust

High Voltage Graphene Capacitor Technology

10:50 to 11:10

Coffee Break

Symposium 6: New Progress in Electrochemical Solar Cells

Room : 201C

Chaired by: Peter Deák

09:30 to 09:50 Invited

Ib Chorkendorff (Department of Physics, Technical University of Denmark, Kongen Lyngby, Denmark)

The Challenge of Interfacing Catalysts, Protection layers, and Semiconductors in a Tandem Device

09:50 to 10:10 Invited

Kuei-Hsien Chen (IAMS, Academia Sinica, Taipei, Taiwan)

Graphene Oxides Based Photocatalyst for Solar Fuels

10:10 to 10:30

Marcel Schreier (Institute of Chemical Sciences and Engineering, Swiss Federal Institute of Technology Lausanne (EPFL), Lausanne, Switzerland), T. M. Aufar Kari, Laura Curvat, Thomas Moehl, Fabrizio Giordano, Antonio Abate, Jingshan Luo, Matthew T. Mayer, Michael Grätzel

Efficient sunlight-driven reduction of CO_2 to fuels based on Cu_2O and perovskite absorbers

10:30 to 10:50

Yi-June Huang (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Miao-Syuan Fan, Chun-Ting Li, Chuan-Pei Lee, R. Vittal, Kuo-Chuan Ho

A Low-Cost Counter Electrode with a $MoSe_2$/PEDOT:PSS Composite Catalytic Film for Dye–Sensitized Solar Cells

10:50 to 11:10

Coffee Break

Symposium 7: Electrodeposition - The Frontier Approach in Material Science and Nanofabrication

Room : 103

Chaired by: Stanko Brankovic and Natasa Vasiljevic

09:30 to 10:10 Keynote

Nikolay Dimitrov (Chemistry, Binghamton University - SUNY, Binghamton, USA)

Advances in the Growth of Metals and Alloys Assisted by a Monolayer Amount of UPD Atoms

10:10 to 10:30 Invited

Natasa Vasiljevic (School of Physics, University of Bristol, Bristol, United Kingdom), Benjamin Rawlings, Michael P. Mercer, Zakiya Al Amri

Surface Limited Redox Replacement Design of Pt Bimetallic Nanostructures

10:30 to 10:50 Invited

Stanko Brankovic (Electrical and Computer Engineering, University of Houston, Houston, USA), Ela Bulut, Donjun Wu, Hasan Kilic

SLRR of UPD Monolayers – Fundamental Aspects and Interplay of UPD, Reaction Kinetics, and Nucleation

10:50 to 11:10

Coffee Break

Symposium 9: Electrocatalytic Materials

Room : 201EF

Chaired by: Chen-Hao Wang

09:30 to 10:10 Keynote

Jong-Sung Yu (Department of Energy Systems Engineering, Daegu Gyeongbuk Institute of Science and technology (DGIST), Daegu, Korea), Dea-Soo Yang, Min Young Song, Kiran Pal Singh, Fatemeh Razmjooei Heteroatom-Doped Porous Carbon as Electrocatalyst: Surface Properties and Electrocatalytic Activity

10:10 to 10:30

Candice Rassie (Chemistry, University of the Western Cape, Cape Town, South Africa), Lindsay Wilson, Priscilla Baker, Emmanuel Iwuoha

Microscopic and Electrochemical Signatures of Copper-poly(propyleneimine) Metallodendrimer System

10:30 to 10:50

Yan-Xia Jiang (Department of Chemistry, Xiamen University, Xiamen, China), Bin-Wei Zhang, Shi-Gang Sun

Pt_3Ni intermetallic with Pt-rich surface supported on porous carbon as a high efficient electrocatalyst for oxygen reduction reaction

10:50 to 11:10

Coffee Break

Symposium 10: Electrochemical Technology: New Challenges for a More Competitive Economy

Room : 101B

Chaired by: Juan Manuel Peralta-Hernández and Carlos Ponce de Leon

09:30 to 10:10 Keynote

Geoff Kelsall (Department of Chemical Engineering, Imperial College London, London, United Kingdom), Nick Farandos, Anna Hankin, Lisa Kleiminger

Electrode Structural Effects on Solid Oxide Electrolyser Performance

10:10 to 10:30

Antonio de Lucas Consuegra (Chemical Engineering, Castilla La Mancha, Ciudad Real, Spain), Jesús Gonzalez-Cobos, Victor Rico, Agustín Gonzalez-Elipe, Jose Luis Valverde

Hydrogen production and storage by coupling of catalysis and electrochemistry

10:30 to 10:50

Jesus Iniesta (Physical Chemistry and Institute of Electrochemistry, Alicante University, Alicante, Spain), Leticia Garcia-Cruz, Vicente Montiel, Conchi Ania

Electrocatalytic properties of Cu-/Ni-loaded nanoporous carbons for the electrooxidation of alcohols

10:50 to 11:10

Coffee Break

Symposium 12: Physical Electrochemistry: Spectroscopic, Structural, and Theoretical Investigations of the Electrified Interface

Room : 101C

Chaired by: Aliaksandr Bandarenka and Ana Sofia Varela

09:30 to 09:50

Enrique Herrero (Instituto de Electroquímica, Universidad de Alicante, Alicante, Spain), Valentin Briega-Martos, Adolfo Ferre-Vilaplana

Effect of Acetonitrile Adsorption on the ORR on Platinum Single Crystal Electrodes. A Combined Electrochemical, Spectroscopic and DFT Study

09:50 to 10:10

Ioannis Katsounaros (Leiden Institute of Chemistry, Leiden Universiteit, Leiden, Netherlands), Pietro P. Lopes, Dusan Strmcnik, Andrew Gewirth, Marc T.M. Koper, Nenad M. Markovic

Electrochemical Oxidation of Ammonia on Pt(100) in Alkaline Solutions

10:10 to 10:30

Jian-Feng Li (Chemistry, Xiamen University, Xiamen, China), Chao-Yu Li, Jin-Chao Dong, Xi Jin

Electrochemical Shell-Isolated Nanoparticle-Enhanced Raman Spectroscopy (EC-SHINERS)

10:30 to 10:50

Azhagurajan Mukkannan (Frontier Institute for Interdisciplinary Sciences, Tohoku University, Sendai, Japan), Takashi Itoh

Direct observation of electrochemical processes at single atomic layer: an advanced optical microscopy study

10:50 to 11:10

Coffee Break

Symposium 15: Electrochemical Engineering from a Quantum Description to the Plant Modeling: Experiments and Design across Length Scale

Room : South Lounge

Chaired by: Alejandro A. Franco

09:30 to 09:50 Invited

Frédéric Sauvage (Laboratoire de Réactivité et Chimie des Solides, CNRSUMR7314, Université de Picardie Jules Verne, Amiens, France)

Solid electrolyte interphase formation in dye-sensitized solar cells: where experimental ends and modeling could start

09:50 to 10:10 Invited

Hye Jin Lee (Chemistry, Kyungpook National University, Daegu, Korea)

Electrochemistry with Nanobioconjugates and Soft Interfaces for Sensing Applications

10:10 to 10:30

Fadhila Sekli Belaidi (Micro-Nano-Bio-Technologie, LAAS-CNRS, Toulouse, France), William Tiddi, Matthieu Polverel, Gabriel Lemercier, Venkata Suresh Reddy Vajrala, Dodzi Zigah, Neso Sojic, Jérôme Launay, Pierre Temple-Boyer, Stephane Arbault

Arrays of Microwells Equipped with a Recessed Ring Nanoelectrode and a Disk Microelectrode for Nanoelectrochemistry Investigations

10:30 to 10:50

Ivan Kondov (Steinbuch Centre for Computing, Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen, Germany), Patrick Faubert, Claas Müller, Holger Reinecke

Modelling, Simulation and Characterization of Electrocatalytic Oxygen Reduction on Cr-modified Ni Surfaces

10:50 to 11:10

Coffee Break

Symposium 16: Supramolecular Electrochemistry for Analysis, Medicine and Biological Sciences

Room : 201D

Chaired by: Chii-Wann Lin and Francesco Paolucci

09:30 to 09:50

Renata Bilewicz (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Ewa Nazaruk, Monika Szlezak, Ehud M. Landau

Lyotropic cubic phase gels and nanoparticles for drug delivery: tuning drug diffusion and sustained release from the mesophase

09:50 to 10:10

Olga Swiech (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Ewelina Kurowicka, Agata Krzak, Maciej Majdecki, Marcin Kruszewski, Renata Bilewicz

Application of New Conjugate of Cyclodextrin and Lipoic Acid in pH-Sensitive, Multifunctional Drug Carriers

10:10 to 10:50 Keynote

Alexander Kuhn (ENSCBP, University Bordeaux, Pessac, France), Thittaya Yutthalekha, Chularat Wattanakit, Yémima Bon Saint Côme, Veronique Lapeyre, Philippe A. Bopp, Matthias Heim, Sudarat Yadnum, Somkiat Nokbin, Chompunuch Warakulwit, Jumras Limtrakul

Supramolecular Enantioselective Recognition at Mesoporous Chiral Metal Surfaces

10:50 to 11:10

Coffee Break

Tuesday, 6 October 2015 - Afternoon

Symposium 1: New Directions in Analytical Electrochemistry

Room : 103

Chaired by: J. Justin Gooding; Yi-Tao Long

14:00 to 14:40 Keynote

Osamu Niwa (Biomedical Research Institute, National Institute of Advanced Industrial Sci. and Tech., Tsukuba, Japan), Dai Kato, Tomoyuki Kamata, Daiki Kato, Shunsuke Shiba, Shigeru Hirono, Eisuke Kuraya, Masashi Kunitake, Naoto Yamaguchi, Hiroshi Imaya

Hybrid carbon film electrodes for electroanalytical applications

14:40 to 15:00

Andreas Lesch (Laboratory of Physical and Analytical Electrochemistry, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland), Fernando Cortés-Salazar, Sunny Maye, Véronique Amstutz, Philippe Tacchini, Hubert Girault

Nano-Hydrogel Modified Carbon Nanotubes Electrodes for Antioxidant Monitoring in Complex Samples

15:00 to 15:20

Shaneel Chandra (School of Biological and Chemical Sciences, The University of the South Pacific, Suva, Fidji), Wycliff Tupiti

Gold nanoparticles-modified physically small carbon sensors towards sensitive and selective As(III) detection in aquatic samples

15:20 to 15:40

Salvatore Daniele (Molecular Sciences and Nanosystems, University Cà Foscari Venice, Venice, Italy), Alberto Citron, Dario Battistel, Carlo Bragato, Daniele Veclani

Disk Shaped Platinum Nanoelectrodes with Unexpected High Surface Area for the Detection of Hydrogen Peroxide

15:40 to 16:00

Yukihiro Shintani (School of Science and Engineering, Waseda University, Tokyo, Japan)

All-solid-State pH Sensor utilizing Termination-controlled Boron-doped Diamond Surface as pH-sensitive/pH-less-sensitive Interface

16:20 to 16:40

Coffee Break

16:40 to 17:00 Invited

Jyh-Myng Zen (Chemistry, National Chung Hsing University, Taichung, Taiwan)

An Easily Applicable Green Method for Real Sample Analysis Based on Disposable Gas Sensor

17:00 to 17:20

Grzegorz Lisak (Chemical Engineering, Process Chemistry Centre, Laboratory of Analytical Chemistry, Åbo Akademi, Åbo-Turku, Finland), Jingwen Cui, Sylwia Strzałkowska, Thomas Arnebrant, Tautgirdas Ruzgas, Johan Bobacka

Analytical Applications of Paper and Textiles in Microfluidic Sampling and Sample Handling Integrated with Electrochemical Sensors

17:20 to 17:40

Christopher Brett (Department of Chemistry, University of Coimbra, Coimbra, Portugal), Madalina M. Barsan, Melinda David, Monica Florescu

Self-Assembled Layer-by-Layer Architectures for Electrochemical Sensors and Biosensors

17:40 to 18:00
Christian Andre Gunawan (School of Chemistry, The University of New South Wales, Sydney, Australia), Richard Gondosiswanto, Mengchen Ge, Chuan Zhao

Salt-on-a-chip: Miniaturized Ionic Liquid Systems

18:00 to 18:20
Mario Castaño-Álvarez (R&D, Micrux Technologies, Oviedo, Spain), Ana Fernández-la-Villa, Diego F. Pozo-Ayuso, Jorge Elizalde, María Tijero

Novel Microfluidic Electrochemical Sensors for Thin-Layer based Flow Analysis Systems

Symposium 2: Electrochemical Aspects of Biological Systems: Theory, Experiment and Applications

Room : 101D

Chaired by: Damien Arrigan and Ross Milton

14:00 to 14:40 Keynote
Lanqun Mao (Institute of Chemistry, Chinese Academy of Sciences, Beijing, China)

Enabling Bioelectrochemistry for In Vivo Analysis

14:40 to 15:00
Shen-Ming Chen (Department of Chemical Engineering and Biotechnology, National Taipei University of Technology, Taiwan), Chelladurai Karuppiah, Rajkumar Devasenathipathy, Selvakumar Palanisamy, Verappan Mani

Synthesis and Characterization of carbon based nanocomposites and its electrocatalytic activity towards biomolecules and hazardous pollutants

15:00 to 15:20
Nicolas Mano (CRPP- UPR 8641, Bordeaux, Pessac, France), Anne Sophie Michardière, Cintia Mateo-Mateo, Sébastien Gounel, Isabelle Ly, Philippe Poulin

Wet spun Bio-electronic fibers of imbricated enzymes and carbon nanotubes for efficient microelectrodes

15:20 to 15:40
Stephane Arbault (Institute of Molecular Sciences - CNRS, University of Bordeaux, PESSAC, France), Emmanuel Suraniti, Salem Ben-Amor, Pauline Landry, Michel Rigoulet, Eric Fontaine, Serge Bottari, Anne Devin, Neso Sojic, Nicolas Mano

Monitoring Electrochemically the Early Events of Hydrogen Peroxide Production by Mitochondria

15:40 to 16:00
Libuse Trnkova (Department of Chemistry, Faculty of Science, Masaryk University, Brno, Czech Republic), Iveta Pilarova

DNA Heptamers with Different Central Trinucleotide Sequences Studied by Electrochemical and Spectral Methods

16:00 to 16:20
Ana Maria Oliveira-Brett (Chemistry Department, University of Coimbra, University of Coimbra, Coimbra, Portugal), A.M. Chiorcea-Paquim, T.A. Enache

Amyloid β Peptides Nanostructures: Voltammetric and Atomic Force Microscopy Characterization

16:20 to 16:40
Coffee Break

16:40 to 16:50
Alexandra Bondarenko (Institut des sciences et ingénierie chimiques, Ecole polytechnique fédérale de Lausanne, Lausanne, Switzerland), Tzu-En Lin, Horst Pick, Andreas Lesch, Fernando Cortés-Salazar, Hubert Girault

Scanning electrochemical microscopy of adherent melanoma cells: alive, fixed and permeabilized

16:50 to 17:00

Daliborka Jambrec (Analytical Chemistry - Center for Electrochemical Sciences, Ruhr University Bochum, Bochum, Germany), Magdalena Gebala, Fabio La Mantia, Wolfgang Schuhmann

Diving into the Mechanism of Potential-Assisted ssDNA Immobilization

17:00 to 17:10

Vera Essmann (Analytical Chemistry - Center for Electrochemical Science, Ruhr-Universität Bochum, Bochum, Germany), Yasin Ugur Kayran, Daliborka Jambrec, Adrian Ruff, Stefanie Grützke, Wolfgang Schuhmann

Facile optimization of gold nanostructures for high SERS intensity by means of bipolar electrochemistry

17:10 to 17:20

Karen Monsalve (Bioenergetics and Protein Engineering, Mediterranean Institute of Microbiology-CNRS, Marseille, France), Alan Le Goff, Nicolas Mano, Cristina Gutierrez-Sanchez, Jean-Yves Lojou, Elisabeth Lojou

H_2/O_2 Biofuel Cells: Macro-structured Conductive Supports to Enhance Power Cell Performances

17:20 to 17:30

Shajahan Siraj (Department of Chemistry and Biomolecular Sciences, Macquarie University, Sydney, Australia)

Hydrogenated and 4-Sulfobenzene Modified Conical-tip Carbon Electrodes with Antifouling Property for Sensitive Detection of Dopamine

17:30 to 17:40

Bongkyu Kim (School of Environmental Science and Engineering, Gwangju Institute of Science and Technology , Gwangju, Korea), Yooseok Lee, Jisu Kim, In Seop Chang

Commercialization Strategies of Microbial Fuel Cells: Prevention of Voltage reversal in Stackable Approach

17:40 to 17:50

Rachel Gao (Chemistry, University of Southampton, Southampton, United Kingdom), Sarah A. Goodchild, Philip Bartlett

Anthraquinone Labelled DNA for Direct Detection and Discrimination of Closely Related DNA Targets

17:50 to 18:00

Chun-Hao Su (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Chung-Wei Kung, Kuo-Chuan Ho, Ying-Chih Liao

Fabrication of Uniform Metal-organic Framework Thin Film via Inkjet Printing Technology and its Application as a Nitrite Sensor

18:00 to 18:10

Yung-Chun Lin (Chemistry, University of Southampton, Southampton, United Kingdom), James Richardson, Tom Brown, Philip Bartlett

Surface-Enhanced Raman Spectroscopic study of a DNA Beacon Probe Immobilized at a Au Electrode

18:10 to 18:20

Xiaochun Tian (College of Chemistry & Chemical Engineering, Xiamen University, Xiamen, China), Ranran Wu, Zhiyong Zheng, Feng Zhao, Yan-Xia Jiang, Shi-Gang Sun

Electron Transfer effect on the Bioluminescence of Shewanella Woodyi

18:20 to 18:30

Makoto Togami (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Aiko Sasaki, Masato Tominaga

Acceleration of Laccase Bioelectrocatalysis at Carbon Nanotube Interface Modified with Steroid-Type Biosurfactants

Symposium 3: Batteries for Tomorrow's World

Room : 201AB

Chaired by: Minoru Inaba

14:00 to 14:20 Invited
Takeshi Abe (Graduate School of Engineering, Kyoto University, Kyoto, Japan), Shohei Maruyama, Kohei Miyazaki
Rate Determining Factors at Graphite Electrodes- from charge transfer resistances to ion transport resistances -

14:20 to 14:40 Invited
M. V. Reddy (Materials Science & Engg and Physics, National University of Singapore, Singapore, Singapore)
Novel V-containing cathode materials for Li-ion Batteries

14:40 to 15:00
Shujiang Ding (Department of Applied Chemistry, Xi'an Jiaotong University, Xi'an, China)
The Design and Preparation of Multi-dimensional Nanostructured Materials and electrochemical storage

15:00 to 15:20
Alejandro A. Franco (Laboratoire de Réactivité et Chimie de Solides (LRCS), Université de Picardie Jules Verne & CNRS, Amiens, France), Garima Shukla, Matias A. Quiroga, Kan-Hao Xue, Trong-Khoa Nguyen, Guillaume Blanquer, Yinghui Yin
Computational data mining to boost the next generation batteries R&D: the composite electrode architecture

15:20 to 15:40
Andrzej Lewandowski (Faculty of Chemical Technology, Poznan University of Technology, Poznan, Poland)
Li-ion battery operation limits

15:40 to 16:00
Alexandre Ponrouch (QES, ICMAB-CSIC, Bellaterra, Spain), Carlos Frontera, Fanny Bardé, M. Rosa Palacín
Towards a rechargeable battery technology based on calcium

16:00 to 16:20
Kolja Beltrop (MEET Battery Research Centre, WWU, University of Münster, Münster, Germany), Martin Winter, Tobias Placke
Does Size really Matter? New Insights into the Intercalation Behavior of Anions into a Graphite Based Positive Electrode

16:20 to 16:40
Coffee Break

16:40 to 17:20 Keynote
Atsuo Yamada (Department of Chemical System Engineering, The University of Tokyo, Tokyo, Japan), Masashi Okubo, Prabeer Barpanda, Shin-ichi Nishimura, Sai-Cheong Chung, Gosuke Oyama, Yuya Suzuki
Alluaudite $Na_{2+2x}Fe_{2-x}(SO_4)_3$ as 3.8 V Sodium Battery Cathode

17:20 to 17:40 Invited
Shirley Meng (Sustainable Power and Energy Center, University of California San Diego, La Jolla, USA), Chuze Ma, Judith Alvarado, Jing Xu, Haodong Liu
Designing and optimizing novel electrode materials for rechargeable Na-ion batteries with high energy and low cost

17:40 to 18:00
Jie Li (MEET Battery Research Center/Institute of Physical Chemistry, University of Muenster, Muenster, Germany), Jun Wang, Xin He, Haidong Liu, Tim Risthaus, Tim Risthaus
Synthesis and electrochemistry performance of $Na[FeTi]O_4$ as anode material for sodium-ion battereis

18:00 to 18:20
Ha-Kyung Roh (Department of Material Science and Engineering, Yonsei University, Seoul, Korea), Hyun-Kyung Kim, Myeong-Seong Kim, Kwang Chul Roh

One-pot synthesis of $NaTi_2(PO_4)_3$/rGO nanocomposite for sodium-ion batteries

18:20 to 18:40
Masashi Okubo (Department of Chemical System Engineering, The University of Tokyo, Tokyo, Japan), Satoshi Kajiyama, Xianfen Wang, Hiroki Iinuma, Ryohei Morita, Kazuma Gotoh, Atsuo Yamada

Flexible MXene Nanosheets: Negative Electrode Materials for Lithium-Ion and Sodium-Ion Batteries

Symposium 3: Batteries for Tomorrow's World

Room : 201C

Chaired by: Xuejie Huang

14:00 to 14:20 Invited
Yi Cui (Department of Materials Science and Engineering, Stanford University, Stanford, USA)

Materials Design for Lithium-Sulfur Batteries

14:20 to 14:40
Dauren Batyrbekuly (Institute of Batteries, Institute of Batteries, Astana, Kazakhstan), Almagul Mentbayeva, Yongguang Zhang, Indira Kurmanbayeva, Kuralay Korzhynbayeva

Reinforced composite gel-polymer electrolytes for lithium-sulfur batteries

14:40 to 15:00
Xiaogang Zhang (College of Material Science and Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China), Guiyin Xu, Bing Ding, Hui Dou, Ping Nie, Jin Pan

Insights into the Absorption Mechanism of Carbon Nanotube Paper-Titanium Dioxide as a Multifunctional Barrier for Lithium-Sulfur Batteries

15:00 to 15:20
Almagul Mentbayeva (Institute of Batteries, Institute of Batteries, Nazarbayev University, Astana, Kazakhstan), Aishuak Konarov, Ayaulym Belgibayeva, Toru Hara, Nurzhan Umirov, Zagipa Bakenova

Free standing sulfur-composite cathode for lithium-sulfur batteries

15:20 to 15:40
Heng-Liang Wu (Department of Chemistry, University of Illinois Urbana-Champaign, Urbana, USA), Laura A. Huff, Andrew Gewirth

In-situ Raman Spectroscopy and EQCM study of Lithium-Sulfur Batteries

15:40 to 16:00
Jason Fang (Material and Chemical Research Laboratories, Industrial Technology Research Institute, Hsinchu, Taiwan)

A High Energy, Long-life Li-S Battery Enabled by Mille-Feuille Structure Electrode

16:00 to 16:20
Matthew Lacey (Department of Chemistry - Ångström Laboratory, Uppsala University, Uppsala, Sweden), Anurag Yalamanchili, Viking Oesterlund, Fabian Jeschull, Julia Maibach, Carl Tengstedt, Kristina Edström, Daniel Brandell

Self-Discharge and Cycling Stability in the Li-S System: Where Every Cell Component Plays a Role

16:20 to 16:40
Coffee Break

16:40 to 17:00 Invited

Yong Yang (Chemistry, Xiamen University, Xiamen, China), Sihui Wang, Xuehang Wu, Shouding Li, Jianghuai Guo, Yixiao Li

Enhancing electrochemical performance of layered oxide cathode materials for Li/Na ion batteries

17:00 to 17:20

Yuebin Yang (Department of Chemical and Biomolecular Engineering, The Hong Kong University of Science and Technology, Hong Kong, China), Hui Xu

Carbonized Polydopamine/Sulfur Composite with One-Dimensional Structure for High Performance Lithium Sulfur Batteries

17:20 to 17:40

Elie Paillard (Helmholtz Insitute Muenster, Forschungszentrum Juelich, Muenster, Germany), Lorenzo Grande, Marija Kirchhöfer, Irene Osada, Stephan Koch, Stefano Passerini

Ionic Liquids and Polymer Electrolytes for Li-metal Batteries

17:40 to 18:00

Nadège Bonnet-Mercier (Byon Initiative Research Unit (IRU), RIKEN, Wakoshi, Japan), Raymond Wong, Hye Ryung Byon

Understanding Na-O_2 Electrochemistry in Non-aqueous Na-O_2 Batteries

18:00 to 18:20

Satoshi Fujiki (AR-3, Samsung R&D Institute Japan, 2-1-11, Semba Nishi, Minoh City, Japan)

Development of a high energy density sulfide-based all-solid-state battery

Symposium 5: Novel Insights to Electrochemical Capacitors

Room : 101A

Chaired by: Masayuki Morita, Soo-Gil Park, Patrice Simon and Wataru Sugimoto

14:00 to 14:20

Etsuro Iwama (Applied Chemistry, Tokyo University of Agriculture and Technology, Tokyo, Japan), Takumi Furuhashi, Yuta Abe, Keita Okazaki, Shintaro Aoyagi, Junichi Miyamoto, Wako Naoi, Katsuhiko Naoi

Ultrafast Electrochemical Characteristics of nc-TiO2 (B)/Nanocarbon Composites for Hybrid Capacitor System

14:20 to 14:40

Wan-Yu Tsai (CIRIMAT, Universite Paul Sabatier, Toulouse, France), John M. Griffin, Alexander C. Forse, Clare P. Grey, Pierre-Louis Taberna, Patrice Simon

In-situ Electrochemical Quartz Crystal Microbalance (EQCM) Study of Ion Dynamics and Charge Storage Mechanism for Supercapacitors

14:40 to 15:00

Tu-Ting Weng (Department of Chemcial Engineering, National Taiwan University, Taipei, Taiwan), H.A. Pan, R. C. Lee, T.Y. Huang, Y. Chu, J.F. Lee, H.S. Sheu, Nae-Lih Wu

Spatially Confined MnO_2 Nanostructure Enabling Long-Term Reversible Two-Electron Transfer in Mixed Pseudocapacitor-Battery Electrode

15:00 to 15:20

Chung-Ting Tsai (Research and Development, China Steel Chemical Corporation, Kaohsiung, Taiwan), Jing-Mei LI, Chi-Shyan Mai, Sen-Tsan Shen, Ming-Da Fang

The influence of Pore Size Distribution and surface area both are analyzed by QSDFT on capacitance and ESR of EDLC consists of activated carbon form coal tar pitch

15:20 to 15:40

Krzysztof Fic (Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Poznan, Poland), Jakub Menzel, Elzbieta Frackowiak

Faradaic and Non-faradaic Interactions at the Electrode/Electrolyte Interface in Electrochemical Capacitors

15:40 to 16:00

Laura Coustan (ICGM-AIME, Institut Charles Gerhardt, UMR 5253 CNRS, Université Montpel, Montpellier, France), Vanessa Armel, Frederic Jaouen, Frédéric Favier

Metal Organic Frameworks as precursors of porous carbon materials for supercapacitor applications

16:00 to 16:20

Pawel Jezowski (Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Poznan, Poland), Olivier Crosnier, Thierry Brousse, François Béguin

New materials for in-situ pre-lithiation of the graphite anode in lithium ion capacitor

16:20 to 16:40

Coffee Break

16:40 to 17:00 Invited

Yongyao Xia (Chemistry, Fudan University, Shanghai, China), Yanfang Song, Dandan Zhou

Nitrogen-doped Mesoporous Carbon for Supercapacitor Application

17:00 to 17:20 Invited

Frédéric Favier (Institut Charles Gerhardt Montpellier, UMR 5253 CNRS Université de Montpellier, Montpellier, France), Peng-Cheng Gao, Laura Coustan, Wan-Yu Tsai, Carlos Pérez, Patricia Russo, Yury Gogotsi, Nicola Pinna, Patrice Simon

Graphene-based Electrochemical Capacitors

17:20 to 17:40 Invited

Soo-Gil Park (Industrial Engineering Chemistry, Chungbuk National University, Cheongju, Korea), Joeng-Jin Yang, Han-Joo Kim, Young-Jae Yuk

Electrochemical Characteristics of Composite Materials as Carbon & Metal Oxide for Hybrid Capacitor

17:40 to 18:00 Invited

Soshi Shiraishi (Gunma University, Graduate School of Science and Technology, Kiryu, Japan), Yasuyoshi Shiraishi, Hiroyuki Fujimoto

Graphite-Fluoride Lithium Hybrid Capacitor

18:00 to 18:20 Invited

Jong-Huy Kim (Energy Storage Research Lab., Korea Institute of Energy Research, Daejeon, Korea), Young-Joon Oh, Jung-Joon Yoo, Yong-Il Kim, Jae-Kook Yoon

Oxygen Functional Groups of Incompletely Reduced Graphene Oxides for a Thin-film Electrode of Supercapacitor

18:20 to 18:40

JunHui Jeong (Material Science and Engineering, Yonsei Univ., Seoul, Korea), Hyun-Kyung Kim, Suk-Woo Lee

Fabrication of Graphene Microspheres for High Performance Supercapacitor Applications

Symposium 8: Corrosion and Passivity

Room : 201D

Chaired by: Dirk Engelberg and Shinji Fujimoto

14:00 to 14:20
Oliver Chyan (Department of Chemistry, University of North Texas, Denton, USA)
Micro-pattern Corrosion Screening on Bimetallic Corrosion for Microelectronic Application

14:20 to 14:40
Jun-Seob Lee (Graduate School of Chemical Sciences and Engineering, Hokkaido University, Sapporo, Japan), Yuichi Kitagawa, Takayuki Nakanishi, Yasuchika Hasegawa, Koji Fushimi
Passivation Behavior of Type-316L Stainless Steel in the Presence of Hydrogen Sulfide Ions Generated from Liquid-Phase Ion Gun

14:40 to 15:00
Peter Keech (Nuclear Waste Management Organization, Toronto, Canada), Sridhar Ramamurthy, Rachel Partovi-Nia, Jian Chen, Rebecca Jacklin, David Shoesmith
Copper Coatings for Used Nuclear Fuel Containers: Corrosion Testing

15:00 to 15:20
Xavier Feaugas (La Rochelle University, LaSIE UMR 7356 CNRS, La Rochelle University, La Rochelle, France), Niusha Shakibi Nia, Matthieu Lagarde, Juan Creus, Catherine Savall
Electrochemical behavior of electrodeposited Ni-W nanostructured alloys

15:20 to 15:40
Delphine Veys-Renaux (Institut Jean Lamour, Université de Lorraine, CNRS, Vandoeuvre les Nancy, France), Emmanuel Rocca, Nouha M'hiri, Solenn Reguer, Irina Ioannou, Mohammed Ghoul
Corrosion inhibition of steel by flavonoid model molecules: naringin, neohesperidin, rutin

15:40 to 16:20 Keynote
Hans-Henning Strehblow (Institute of Physical Chemistry, Heinrich-Heine-Universitaet-Duesseldorf, Duesseldorf, Germany)
The Investigation of Passivity of Metals Studied by Surface Analytical Methods, a Review

16:20 to 16:40
Coffee Break

16:40 to 17:00 Invited
Nadine Pebere (CIRIMAT, CNRS, Toulouse, France), Fatah Chiter, Corinne Lacaze-Dufaure, Sabrina Marcelin, Hao Tang
Corrosion Inhibition of Pure Aluminium by 8-Hydroxyquinoline: Combined Electrochemical and DFT Studies

17:00 to 17:20
I-Wen Huang (Materials Science and Engineering, The Ohio State University, Columbus, USA), Rudolph Buchheit
Assessing Uniform Corrosion of Aluminum Alloys 2024-T3, 6061-T6, and 7075-T6 in Aqueous Immersion Conditions

17:20 to 17:40
Hiroaki Tsuchiya (Division of Materials and Manufacturing Science, Osaka University, 2-1 Yamada-oka, Suita, Japan), Min-Su Kim, Toshiaki Erami, Yuki Otani, Shinji Fujimoto
Alloy Anodization in Fluoride-Containing Electrolytes

17:40 to 18:00 Invited
Koji Fushimi (Faculty of Engineering, Hokkaido University, Sapporo, Japan), Haruya Ikeyama, Yuichi Kitagawa, Takayuki Nakanishi, Yasuchika Hasegawa, Mikito Ueda, Toshiaki Ohtsuka
Photo-electrochemical Degradation of Anodized Titanium Surface Observed using EIS and Ellipso-microscopy

18:00 to 18:20
Khurram Shahzad (Graduate School of Chemical Sciences and Engineering, Hokkaido University, Sapporo, Japan)
Influence of water concentration on growth efficiency of barrier-type anodic film on magnesium

18:20 to 18:40
Pei-Yu Lai (Materials Science and Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Jinn P. Chu, Bing-Joe Hwang
Metallic Glass Coatings for Aluminum Current Collectors – Corrosion Inhibition

Symposium 9: Electrocatalytic Materials

Room : 201EF

Chaired by: Kensaku Kodama, Dangsheng Su, Sandra Temmel and Jong-Sung Yu

14:00 to 14:20 Invited
Dangsheng Su (Shenyang National Laboratory for Materials Science, Institute of Metal Research, Chinese Academy of Science, Shenyang, China)
Investigation of the Structure of Fe–N–C Complexes for Oxygen Reduction Reactions

14:20 to 14:40
Kamiya Kazuhide (Department of Applied Chemistry, The University of Tokyo, Tokyo, Japan), Ryo Kamai, Kazuhito Hashimoto, Shuji Nakanishi
Platinum-modified Covalent Triazine Frameworks as Methanol-tolerant Oxygen Reduction Electrocatalysts

14:40 to 15:00
Deli Wang (School of Chemistry and Chemical Engineering, Huazhong University of Science and Technology, Wuhan, China), Jing Zhu, Sufen Liu, Jie Wang, Zexing Wu
Novel Structured Pt-Based Intermetallic Electrocatalysts for ORR

15:00 to 15:20
Bart Geboes (Research Group Advanced Reactor Technology (ART), University of Antwerp, Antwerp, Belgium), Jon Ustarroz, Kadir Sentosun, Sara Bals, Annick Hubin, Tom Breugelmans
Activity and Stability of Electrodeposited Nanoporous Catalysts towards the Oxygen Reduction Reaction

15:20 to 15:40
Ifan Stephens (Physics, Technical University of Denmark, Kongens Lyngby, Denmark), Maria Escudero-Escribano, Ulrik Grønbjerg, Vladimir Tripkovic, Jakob Schiøtz, Jan Rossmeisl, Ib Chorkendorff
Tuning the activity and stability of Pt for oxygen reduction by means of the lanthanide contraction

15:40 to 16:00
Silver Sepp (Institute of Chemistry, University of Tartu, Tartu, Estonia), Jaak Nerut, Kersti Vaarmets, Indrek Tallo, Enn Lust
Performance of PEMFC Half Cells Prepared Using Hierarchical Microporous-Macroporous Carbon Supported Pt-Catalyst

16:20 to 16:40
Coffee Break

16:40 to 17:00
Sandra Temmel (General Energy Department, ETH Zürich/ Paul-Scherrer-Institute, Villigen, Switzerland), Emiliana Fabbri, Daniele Pergolesi, Thomas Lippert, Thomas Justus Schmidt
Investigation of ORR activity of strained thin film Pt electrocatalyst produced by pulsed laser deposition

17:00 to 17:20
Kensaku Kodama (Fuel Cell System Laboratory, Toyota Central R&D Labs. Inc., Nagakute, Japan), Ryosuke Jinnouchi, Naoko Takahashi, Hajime Murata, Yu Morimoto
ORR activities of Au-Modified Stepped Pt Single Crystal Electrodes

17:20 to 17:40
Qingli Hao (School of Chemical Engineering, Nanjing University of Science and Technology, Nanjing, China), Wu Lei, Lei Lu, Xifeng Xia

Synthesis of $CoFe_2O_4$/ Nitrogen-doped Graphene and its Catalytic Performance for ORR

17:40 to 18:00
Gert Göransson (Department of Chemistry and Molecular Biology, University of Gothenburg, Gothenburg, Sweden), Elisabet Ahlberg, Alexander Björling

A study of the Formation of $Co_{1-x}Fe_xS_2$ in Microwave Synthesis and its Electrocatalytic Properties towards Oxygen Reduction and Hydrogen Evolution

18:00 to 18:20
Adriano Gomes (Department of Chemistry and Molecular Biology, University of Gothenburg, Gothenburg, Sweden), Zareen Abbas, Nina Simic, Mats Wildlock, Elisabet Ahlberg

Electrochemical Water Reduction in Highly Concentrated Electrolytes: Theory and Experiments

18:20 to 18:40
Pawel J. Kulesza (Department of Chemistry, University of Warsaw, Warsaw, Poland)

Development and Characterization of Nanostructured Multifunctional Materials for Photoelectrochemical and Electrocatalytic Reduction of Carbon Dioxide and Water Splitting

Symposium 10: Electrochemical Technology: New Challenges for a More Competitive Economy

Room : 101B

Chaired by: Ignacio González and Ricardo Salazar

14:00 to 14:20 Invited
Javier Llanos (Department of Chemical Engineering, University of Castilla-la Mancha, Ciudad Real, Spain), Sabri Kalkan, Alexandra Raschitor, Bahadir K. Körbahti, Pablo Cañizares, Manuel Andres Rodrigo

Development of Reactive Ion Exchange Membranes for Electro-Disinfection

14:20 to 14:40
Henry Bergmann (FB 6 & 7, Anhalt University, Köthen/Anh., Germany), Wido Schmidt, Jens Hartmann

On the necessity of field studies for direct electrochemical drinking water disinfection

14:40 to 15:00 Invited
Onofrio Scialdone (Dipartimento di ingegneria chimica, gestionale, informatica, Università degli Studi di Palermo, Palermo, Italy), Adriana D'Angelo, Alessandro Galia, Simona Sabatino, Fabrizio Vicari

Abatement of pollutants in water by different electrochemical approaches

15:00 to 15:20
Emmanuel Mousset (Civil and Environmental Engineering, National University of Singapore (NUS), Singapore, Singapore), Zuxin Wang, Olivier Lefebvre

Towards a More Competitive Advanced Electrochemical Technology: New Carbon-Based Electrodes Combination for Wastewater Treatment

15:20 to 15:40
Tsuyoshi Ochiai (Photocatalyst Group, Kanagawa Academy of Science and Technology, Kawasaki, Japan), Mio Hayashi, Shoko Tago, Kazuo Hirota, Takeshi Kondo, Kazuhito Satomura, Akira Fujishima

Flexible Pinpoint Electrolysis Unit by Using of Boron-doped Diamond Powder (BDDP) Based Polymer Composites for Dental Treatments

15:40 to 16:00 Invited
Philippe Vernoux (IRCELYON, CNRS, Villeurbanne, France)

Electrochemical activation of environmental catalysis

16:00 to 16:20

Carlos Alberto Martinez-Huitle (Institute of Chemistry, Federal University of Rio Grande do Norte, NATAL, Brazil), Ana S. dos Santos Fajardo, Maiara Barbosa Ferreira, Rui C. Martins, Djalma Ribeiro da Silva, Rosa M. Quinta-Ferreira

Electrochemical Sequential Flow Reactors for removing Textile Dyes Using Different Anodes

16:20 to 16:40

Coffee Break

16:40 to 17:00 Invited

Takayuki Homma (Applied Chemistry, Waseda University, Tokyo, Japan), Yingying Sun, Masahiro Kunimoto, Mikiko Saito, Masahiro Yanagisawa

In situ Analysis of Electrochemical Fabrication Processes Using Raman Spectroscopy with Plasmonic Sensors

17:00 to 17:20

Priscilla Baker (Chemistry, Unviersity of the Western Cape, Bellville, South Africa), Meryck Ward, Euodia Hess, Stephen Mailu, Christopher Sunday, Milua Masikini, Emmanuel Iwuoha

Electrochemical protocols for measurement of polycyclic aromatic hydrocarbons in environmental samples

17:20 to 17:40

Nick Daems (Centre for Surface Chemistry and Catalysis, K.U. Leuven, Heverlee, Belgium), Jonatan Wouters, Ivo Vankelecom, Paolo Pescarmona

Non-noble metal-containing doped graphitic carbons as electrocatalysts for the cogeneration of electricity and aniline.

17:40 to 18:00

Geir Martin Haarberg (Materials Science and Engineering, Norwegian University of Science and Technology, Trondheim, Norway), Junli Xu

Sustainable Electrolysis for Electrowinning and Electrorefining of Metals in Molten Salts and Aqueous Electrolytes

18:00 to 18:20

Tom Breugelmans (Research group Advanced Reactor Technology (ART), University of Antwerp, Hoboken, Belgium), Bart Vanrenterghem, Bart Geboes, Jon Ustarroz, Sara Bals, Annick Hubin

Influence of the morphology of electrodeposited nanoparticles on their activity for the cyclisation reaction of allyl 2-bromobenzyl

18:20 to 18:40

Carmen Maria Fernandez Marchante (Chemical Engineerirng, University of Castilla La Mancha, Ciudad Real, Spain), Yeray Asensio, Eduardo Penteado, Iciar Begoña Montes, Marcelo Zaiat, Justo Lobato, Pablo Cañizares, Ernesto Gonzalez, Manuel Andres Rodrigo

Influence of electrode material on microbial fuel cell treating a synthetic and a winery wastewater

Symposium 12: Physical Electrochemistry: Spectroscopic, Structural, and Theoretical Investigations of the Electrified Interface

Room : 101C

Chaired by: Federico Calle-Vallejo, Axel Gross, Katharina Krischer, Jan Rossmeisl

14:00 to 14:40 Keynote Invited
Jan Rossmeisl (Department of Chemistry, University of Copenhagen, København, Denmark)
Special Sites in Electrocatalysis

14:40 to 15:00
Katharina Krischer (Physik-Department, Technische Universität München, Garching bei München, Germany), Philipp Bauer, Munir Salman, Antoine Bonnefont
Peculiar Excitation Waves during CO Electrooxidation on Pt Electrodes in an Electrochemical Flow Cell

15:00 to 15:20 Invited
Aliaksandr Bandarenka (Department of Physics, Technische Universitaet Muenchen, Garching, Germany)
Oxygen Electroreduction at Non-uniform Pt Surfaces: From Model Electrodes to Nanostructured Catalysts

15:20 to 15:40 Invited
Federico Calle-Vallejo (Laboratoire de Chimie, ENS Lyon, Lyon, France), Jakub Timoczko, Viktor Colic, Quang Huy Vu, Marcus D. Pohl, Karina Morgenstern, David Loffreda, Philippe Sautet, Wolfgang Schuhmann, Aliaksandr Bandarenka
Designing Better Electrocatalysts by Simply Counting Surface nearest Neighbors

15:40 to 16:00
Ali Malek (Department of Chemistry, Simon Fraser University, Burnaby, Canada), Mohammad J. Eslamibidgoli, Michael Eikerling
DFT Study of Surface Charging Effects on Oxygen Covered Pt(111)

16:20 to 16:40
Coffee Break

16:40 to 17:00
Sara Panahian Jand (Institut für Chemie und Biochemie, Freie Universität Berlin, Berlin, Germany), Payam Kaghazchi
Theoretical Simulation of Solid Electrolyte Interphases

17:00 to 17:20
Qingli Zou (Mechanical and Automation Engineering, The Chinese University of Hong Kong, Shatin, Hong Kong, China), Yi-Chun Lu
Influence of Electrolyte on Sulfur Redox Reactions: Combined RRDE and in situ UV-VIS Studies

17:20 to 17:40
Shen Ye (Catalysis Research Center, Hokkaido University, Sapporo, Japan), Yu Qiao
In-situ Study of Oxygen Reduction in DMSO Solution

17:40 to 18:00
Ove Oll (Institute of Chemistry, University of Tartu, Tartu, Estonia), Tavo Romann, Enn Lust
An Infrared Study of the Few-Layer Graphene | Ionic Liquid Interface: Correlation between Electronic and Ionic Surface Structure

18:00 to 18:20
Matej Velicky (School of Chemistry, University of Manchester, Manchester, United Kingdom), Peter S. Toth, Mark A. Bissett, Ian A. Kinloch, Konstantin S. Novoselov, Robert A.W. Dryfe
Electrochemistry of Two-Dimensional Materials

18:20 to 18:40
Katsuyoshi Ikeda (Graduate School of Engineering, Nagoya Institute of Technology, Nagoya, Japan)
Surface enhanced Raman observation of molecular adsorbates on atomic local surface sites

Symposium 15: Electrochemical Engineering from a Quantum Description to the Plant Modeling: Experiments and Design across Length Scale

Room : 102

Chaired by: Jaeyoung Lee

14:00 to 14:40 Keynote Invited
Bongjin Simon Mun (Gwangju Institute of Science and Technology, Gwangju, Korea)
Development of Ambient Pressure XPS and its Applications to Electrochemistry

14:40 to 15:00
Byungchan Han (Chemical and Biomolecular Engineering, Yonsei university, Seoul, Korea), Seunghyo Noh
Multi-scale Computational Design of Multi-functional Catalyst Materials for Fuel Cells Beyond Conventional Bulk Pt

15:00 to 15:20
Guadalupe Ramos-Sanchez (Departamento de Química, Universidad Autónoma Metropolitana, Mexico City, Mexico)
A multi-scale model to account for the electrochemical response of the oxygen reduction reaction on highly active graphene nanosheets in alkaline conditions

15:20 to 15:40 Invited
Trung Van Nguyen (Chemical and Petroleum Engineering, University of Kansas, Lawrence, USA)
Water Management in Proton Exchange Membrane Fuel Cells by Materials Design and Engineering

15:40 to 16:20 Keynote
Tetsuya Mashio (Research Division, Nissan Motor Co., Ltd., Yokosuka, Japan), Atsushi Ohma, Takashi Tokumasu
Analysis of PEMFC Catalyst Layers from Fabrication Process to Performance

16:20 to 16:40
Coffee Break

16:40 to 17:00
Daniel Brandell (Department of Chemistry, Uppsala University, Uppsala, Sweden), Shruti Srivastav, Matthew Lacey
Combined Finite Element Modelling and EIS Studies for SoC Indication in Rechargeable Li-Ion Batteries

17:00 to 17:20 Invited
Christine Frayret (UFR des Sciences, LRCS-CNRS UMR 7314, Université de Picardie Jules Verne, Amiens, France), Daniele Tomerini, Carlo Gatti, Yann Danten
Catalyzing Innovation in Organic Battery Electrodes from Computational Modelling

17:20 to 17:40 Invited
Payam Kaghazchi (Physikalische und Theoretische Chemie, Freie Universität Berlin, Berlin, Germany)
Theoretical Study of Lithium-Sulfur Battery Cathodes

17:40 to 18:00
Yinghui Yin (Laboratoire de Réactivité et Chimie des Solides (LRCS), Université de Picardie Jules Verne & CNRS, Amiens, France), Guillaume Blanquer, Matias A. Quiroga, Alejandro A. Franco
Boosting Lithium Air Batteries from a Multiscale Modeling Approach

18:00 to 18:20
Seunghwa Lee (School of Environmental Science and Engineering, Gwangju Institute of Science and Technology, Gwangju, Korea), Hansaem Jang, Jaeyoung Lee
The pH Effect on the Electrochemical Reduction of Carbonate Species over Metal Oxide Electrodes

18:20 to 18:40
Hyungjun Kim (Graduate School of EEWS, Korea Advanced Institute of Science and Technology, Daejeon, Korea), Hyung-Kyu Lim, Hyeyoung Shin
Toward efficient electrochemical conversion of CO_2: catalyst design accelerated by simulation-based screening

Wednesday, 7 October 2015

ROOMS:	101A	101B	101C	101D	102	103	201AB	201EF	201C	201D
SYMPOSIUM	**s05**	**s10**	**s07**	**s02**	**s04**	**s01**	**s03**	**s09**	**s03**	**s08**
08:15 - 09:15	Plenary Lecture: Li-Jun Wan (Plenary Hall)									
09:30 - 09:50	Thierry Brousse	C. Ponce de Leon	Chih Chen	Y. Takahashi	Eiichi Yasumoto	J. Justin Gooding	Claude Delmas	Lin Zhuang	Fridolin Röder	Bernard Tribollet
09:50 - 10:10		Mitsuru Wakisaka		Ming-Chang Yang	Tae-Hyun Yang				Fabian Jeschull	
10:10 - 10:30	Andrea Balducci	Min-Hsin Yeh	Rohan Akolkar	Woonsup Shin	Michael Fleige	Emmanuel Iwuoha	Shou-Yu Shen	Junliang Zhang	Po-Han Lee	Yu-Min Chen
10:30 - 10:50	Sonia Dsoke	Laura Valero	Atsushi Kitada		Hiroki Habazaki	Sabine Szunerits	Shinya Suzuki	Wei Xing	Nan Lin	Sara Munktell
10:50 - 11:10	Coffee Break									
11:10 - 11:30	POSTERS SESSION 3									
11:30 - 11:50										
11:50 - 12:10										
12:10 - 12:30										

Wednesday, 7 October 2015 - Morning

Plenary Lecture

Room : Plenary Hall

Chaired by: Zhong-Qun Tian

08:15 to 09:15

Li-Jun Wan (Institute of Chemistry, Chinese Academy of Sciences, Beijing, China)

Nanomaterials for Energy Conversion and Storage: Structure Design and In-Situ Monitoring

Symposium 1: New Directions in Analytical Electrochemistry

Room : 103

Chaired by: Osamu Niwa and Patrick Unwin

09:30 to 10:10 Keynote

J. Justin Gooding (School of Chemistry, The University of New South Wales, Sydney, Australia), Moinul Choudhury, Simone Ciampi, Stephen G. Parker, Ying Yang, Roya Tavallaie, Leila Zarei, Vinicius Goncales

Light Activated Electrochemistry: A strategy for performing voltammetry on a monolithic surface where you want, when you want with micron scale spatial resolution

10:10 to 10:30

Emmanuel Iwuoha (Department of Chemistry, SensorLab, University of Western Cape, Cape Town, South Africa)

Biocompatible Quantum Dots and Conducting Polymer Nanocomposites in Disease Signalling Biosensors

10:30 to 10:50 Invited

Sabine Szunerits (IEMN, University Lille, Villeneuve d'Ascq, France)

Reduced graphene oxide modified electrodes: from glucose sensing to electrochemical delivery of insulin

10:50 to 11:10

Coffee Break

Symposium 2: Electrochemical Aspects of Biological Systems: Theory, Experiment and Applications

Room : 101D

Chaired by: Alexandra Bondarenko and Shen-Ming Chen

09:30 to 09:50
Yasufumi Takahashi (WPI-AIMR, Tohoku University, Sendai, Japan), Sen Mustafa, Hiroki Ida, Hitoshi Shiku, Tomokazu Matsue

Improving the Electrochemical Measurement Sensitivity of SECM-SICM by using Pt Electrodeposited Carbon Nanoelectrode

09:50 to 10:10
Ming-Chang Yang (Department of Chemical Engineering, National Cheng Kung University, Tainan, Taiwan), Yi-Kai Chih, Ya-Yun Zhan

Nitrogen-doped Carbon Electrodes for Simultaneous Detection of Dopamine, Uric Acid and Ascorbic Acid

10:10 to 10:50 Keynote
Woonsup Shin (Department of Chemistry, Sogang University, Seoul, Korea)

Development of Drug Delivery Devices Based on Nongassing Electroosmotic Pump

10:50 to 11:10
Coffee Break

Symposium 3: Batteries for Tomorrow's World

Room : 201AB

Chaired by: Yong Yang

09:30 to 10:10 Keynote
Claude Delmas (ICMCB, CNRS, Pessac, France)

An Overview of the Behavior of Overlithiated Li(Li,Mn,Co,Ni)O_2 Layered Oxides In Lithium-ion Batteries

10:10 to 10:30
Shou-Yu Shen (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China)

Superior electrochemical performance of Li-rich $Li_{1.188}Ni_{0.198}Co_{0.087}Mn_{0.553}O_2$ cathode material by coating Li–La–Zr–O solid electrolyte

10:30 to 10:50
Shinya Suzuki (Department of Applied Chemistry, School of Engineering, The University of Tokyo, Tokyo, Japan), Masaru Miyayama

Electrode properties of the restacked MnO2-based nanosheets with vacancy defects

10:50 to 11:10
Coffee Break

Symposium 3: Batteries for Tomorrow's World

Room : 201C

Chaired by: K. Zaghib

09:30 to 09:50

Fridolin Röder (Institute of Energy and Process Systems Engineering, Technical University of Braunschweig, Braunschweig, Germany), Ulrike Krewer

Fundamental Analysis of Lithium-ion Battery Performance and Degradation in Context of Particle Size Distribution

09:50 to 10:10

Fabian Jeschull (Department of Chemistry, Ångström Laboratory, Uppsala University, Uppsala, Sweden), Matthew Lacey, Daniel Brandell

Functional Binders - SEI Formers, Dispersants and Local Electrolyte Components

10:10 to 10:30

Po-Han Lee (Department of Materials Engineering, Tatung University, Taipei City, Taiwan), She-huang Wu

Unexpected Cycle Aging of a Commercial 18650 Cell

10:30 to 10:50

Nan Lin (Institute of Energy and Process Systems Engineering, TU Braunschweig, Braunschweig, Germany), Ulrike Krewer

Novel Electrochemical-Thermal Modeling for Lithium-ion Battery Design based on a Fast Reduced P2D Electrochemical Model

10:50 to 11:10

Coffee Break

Symposium 4: Advances in Fuel Cells from Materials to Systems

Room : 102

Chaired by: Hiroyuki Uchida

09:30 to 09:50 Invited

Eiichi Yasumoto (Corporate Engineering Division, Appliances Company, Panasonic Corporation, 3-1-1 Yagumo-naka-machi, Moriguchi City, Japan), Masataka Ozeki

Evolution of "ENE-FARM" and the Activities for the Market Expansion in Panasonic

09:50 to 10:10 Invited

Tae-Hyun Yang (Fuel Cell Research Center, Korea Institute of Energy Research, Daejeon, Korea), Young-Jun Sohn, Minjin Kim, Seung-Gon Kim

Design and Development of a Fuel Cell Power Module for High Altitude and Long Endurance Unmanned Aerial Vehicles

10:10 to 10:30

Michael Fleige (Department of Chemistry and Nano-Science Center, University of Copenhagen, Copenhagen, Denmark), Gustav Wiberg, Matthias Arenz

RDE system for ORR measurements at elevated (>100 °C) temperature and pressure conditions

10:30 to 10:50

Hiroki Habazaki (Faculty of Engineering, Hokkaido University, Sapporo, Japan)

Oxygen Reduction Activity and Durability of Pt Electrocatalysts Supported on Platelet Carbon Nanofibers

10:50 to 11:10

Coffee Break

Symposium 5: Novel Insights to Electrochemical Capacitors

Room : 101A

Chaired by: Elzbieta Frackowiak

09:30 to 10:10 Keynote

Thierry Brousse (Institut des Matériaux Jean Rouxel (IMN), Université de Nantes, Nantes, France), Mylène Brachet, Jean Le Bideau, Dorian Gaboriau, Gérard Bidan, Pascal Gentile, Said Sadki

Ionogels as safe and thermally stable electrolytes for macro and micro electrochemical capacitors

10:10 to 10:30

Andrea Balducci (Helmholtz Institute Ulm, Helmholtz Institute Ulm - Karlsruhe Institute of Technology, Ulm, Germany), Christoph Schütter, Sebastian Pohlmann, Claudia Ramirez-Castro, Tamara Husch, Martin Korth

Innovative conducting salts and solvents for advanced electrochemical double layer capacitors

10:30 to 10:50

Sonia Dsoke (ECM, ZSW, Ulm, Germany), Tong Zhang, Bettina Fuchs, Marco Secchiaroli, Serife Kaymaksiz, Margret Wohlfahrt-Mehrens

Combination of Li-salt-based electrolytes with activated carbon electrodes for the development of hybrid battery-supercapacitors

10:50 to 11:10

Coffee Break

Symposium 7: Electrodeposition - The Frontier Approach in Material Science and Nanofabrication

Room : 101C

Chaired by: Dow Wei-Ping and Shu-Hua Cheng

09:30 to 10:10 Keynote

Chih Chen (Materials Scicence and Engineering, National Chiao Tung Univ, Hsin-chu, Taiwan)

Electrodeposition of Highly (111)-oriented Nanotwinned Cu and its Application

10:10 to 10:30 Invited

Rohan Akolkar (Chemical and Biomolecular Engineering, Case Western Reserve University, Cleveland, USA), Chang-Jung Hsueh, Dai Shen, Mirko Antloga, Craig Virnelson, Uziel Landau, Mark DeGuire

A Novel Titanium Electrowinning Process Using Specialized Segmented Diaphragms

10:30 to 10:50

Atsushi Kitada (Department of Materials Science and Engineering, Kyoto University, Kyoto, Japan), Yuu Kang, Kai Nakamura, Kazuhiro Fukami, Kuniaki Murase

Room Temperature Electrodeposition of Elemental Magnesium and Aluminum from Glyme-Based Electrolytes

10:50 to 11:10

Coffee Break

Symposium 8: Corrosion and Passivity

Room : 201D

Chaired by: Mark E. Orazem

09:30 to 10:10 Keynote

Bernard Tribollet (UMR8235 LISE, UPMC - CNRS, Paris, France), Sara Chakri, Isabelle Frateur, Frederic Kanoufi, Eliane Sutter, Vincent Vivier

Analysis by EIS of Cathodic Reactions on Carbon Steel in Aerated Solution at pH 13

10:10 to 10:30

Yu-Min Chen (Department of Chemical Engineering, University of Florida, Gainesville, USA), Mark E. Orazem

Analysis of Corrosion Behavior of ASTM A416 Steel by Electrochemical Impedance Spectroscopy

10:30 to 10:50

Sara Munktell (Department of Chemistry - Ångström Laboratory, Uppsala Universitet, Uppsala, Sweden), Leif Nyholm, Fredrik Björefors

Towards high-throughput Corrosion Screening using Bipolar Electrochemistry

10:50 to 11:10

Coffee Break

Symposium 9: Electrocatalytic Materials

Room : 201EF

Chaired by: Shawn D. Lin

09:30 to 10:10 Keynote

Lin Zhuang (Department of Chemistry, Wuhan University, Wuhan, China)

Alkaline polymer electrolyte fuel cells: materials and catalysis

10:10 to 10:30 Invited

Wei Xing (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Jilin, China), Jianbing Zhu, Junjie Ge, Changpeng Liu, Meiling Xiao

Exploration of efficient low-platinum and non-platinum catalysts for oxygen reduction reaction

10:30 to 10:50

Atif Koca (Chemical Engineering Department, Marmara University, Istanbul, Turkey), Mehmet Aydemir, Duygu Akyüz, Burag Agopcan, Cevat Sarıoğlu, M. Kasim Sener, Fatma K. Albayrak

Electrocatalytic and Photocatalytic Hydrogen Production

10:50 to 11:10

Coffee Break

Symposium 10: Electrochemical Technology: New Challenges for a More Competitive Economy

Room : 101B

Chaired by: Carlos Alberto Martinez-Huitle and Henry Bergmann

09:30 to 09:50 Invited

Carlos Ponce de Leon (Faculty of Engineering and the Environment, University of Southampton, Southampton, United Kingdom), Rachel D. McKerracher, Horacio A. Figueredo-Rodriguez, Frank C Walsh

A Bifunctional Air Electrode Catalyzed by Transition Metal Ferricyanide Derivatives for an Iron-air battery

09:50 to 10:10

Mitsuru Wakisaka (Fuel Cell Nanomaterials Center, University of Yamanashi, Kofu, Japan), Masashi Kunitake

Direct Electrochemical Hydrogenation of Aromatic Molecules at Pt Electrode in Microemulsion Electrolyte Solution

10:10 to 10:30

Min-Hsin Yeh (School of Materials Science and Engineering, Georgia Institute of Technology, Atlanta, USA), Long Lin, Zhong Lin Wang

Motion-driven Electrochromic Reactions for Self-powered Smart Window System

10:30 to 10:50

Laura Valero (Research Electronics Departament, Universidad Autónoma Del Estado de México, Toluca, Mexico), Toribio Fernández Otero, Eduardo Rodríguez, Angel Estévez

Validation of Polymeric artificial muscles with a Proportional- Integral control system

10:50 to 11:10

Coffee Break

Thursday, 8 October 2015

ROOMS:	101A	101B	101C	101D	102	103	201AB	201EF	201C	201D
SYMPOSIUM	**s05**	**s18**	**s07**	**s14**	**s04**	**s01**	**s03**	**s09**	**s03**	**s08/s11**
08:15 - 09:15	Plenary Lecture: Martin Winter (Plenary Hall)									
09:30 - 09:50	François Béguin	Yann Leroux	Peter Broekmann	Masa-aki Haga	Shengli Chen	Jan Vacek	Yu-Guo Guo	Li-Chyong Chen	Nae-Lih Wu	Yudai Yamamoto
09:50 - 10:10		Takashi Kakiuchi	Kazuo Kondo	I. A. Rutkowska	Yujia Deng				Laurence Hardwick	Achim W. Hassel
10:10 - 10:30	Mathieu Salanne	Jeyab. Chinnaya	Wei-Yang Zeng	Kim Daasbjerg	Guy Denuault	Judith Rishpon	Louise Frenck	Ana Sofia Varela	Sven Uhlenbruck	En-Hou Han
10:30 - 10:50	Teresa A. Centeno		Chu-Chi Liu		Anthony Kucernak	Tzu-En Lin	Hang Su	Ida Hjorth		
10:50 - 11:10	Coffee Break									
11:10 - 11:30	General Assembly 11:10 to 12:10 (Plenary Hall)									
11:30 - 11:50										
11:50 - 12:10	Lunch									
12:10 - 12:30										
12:30 - 12:50										
12:50 - 13:10	Division 5 Meeting	Division 2 Meeting	Division 3 Meeting	Division 1 Meeting	Division 4 Meeting				Division 7 Meeting	Division 6 Meeting
13:10 - 13:50										
13:50 - 14:00										
14:00 - 14:20	John R. Miller	Alexander Oleinick	Jon Ustarroz	Y. Tateyama	Yu Morimoto	Fethi Bedioui	K. Zaghib	Jun Maruyama	Gao Liu	Flavio Mara
14:20 - 14:40	Hsisheng Teng	A. Fernández-la-V.	Philip Bartlett	Louzhen Fan		Jan Clausmeyer		Yan Shen	Xiaopeng Li	
14:40 - 15:00	Masashi Ishikawa	Ying Wan	Lu Chen	Xingxing Chen	Kuan-Wen Wang	Yu-Chen Chang	Kisuk Kang	Sho Fujita	Hiroyuki Usui	Dongil Lee
15:00 - 15:20	Patrice Simon	Conchi Ania	Tso-Fu Mark Chang	A. Minguzzi	Tilman Jurzinsky	Angelika Holzinger	Reinhold Koch	Xi Cheng	Qihui Wu	M. F. Guedes da S.
15:20 - 15:40	Indrek Tallo	Maria Cuartero	Jinqiu Zhang	J. Rodriguez-Lop.	Sayoko Shironita	Ahmed Abdo	Michael Palmer	Wenting Xu	Yingshun Li	Eric Labbe
15:40 - 16:00	Masayuki Morita	S. Moraes Silva	Zenglin Wang	Michael Holzinger	Evgeniy Gribov	Patrick Unwin	Jagabandhu Patra	Juan Manriquez	Selina Tillmann	James Y. Becker
16:00 - 16:20	Juhan Lee	Jen-Yuan Wang	Chiao-Chien Wei		Fen Guo		Ji Su Chae	Ruud Kortlever	Leiting Zhang	Zhifeng Ding
16:20 - 16:40	Coffee Break									
16:40 - 17:00	Chi-Chang Hu	A. Gomis-Bereng.	Ryoichi Aogaki	Giovanni Valenti	Jianguo Liu	Gunther Wittstock	Raymond Wong	Chun-Ting Li	Peng Bai	Kazuhiro Chiba
17:00 - 17:20	Panel Discussion about Novel Insights to Electrochemical Capacitors	Leigh Aldous	Po-Fan Chan	Kristina Tschulik	Byungchan Bae		O. S. Mendoza-H.	Fabio Dionigi	Edgar Ventosa	
17:20 - 17:40		Dan Nguyen Dang	Iwao Mogi	Line Koefoed	Kwong-Yu Chan	Jie Zhang	Hai-Jung Peng	C. M. Sanchez-S.	Jee-Jay Chen	Jingxian Yu
17:40 - 18:00		Zhang Dalei	Alex. Vaskevich	Stefania Rapino	Michael Eikerling	Yi-Tao Long	Xiaoyu Liu	L. Tamasauskaite	Georgios Nikiforidis	Chengchu Zeng
18:00 - 18:20		Miikka Jokinen	Yao-Lin Tsai	M. A. Vorotyntsev	S. Shanmugam		Jung-Chi Wang	Han Wang	Luis F. Arenas	Jiri Ludvik
18:20 - 18:40				S. Cordoba de Tor.						Wenrong Yang

19:00	Banquet

Thursday, 8 October 2015 - Morning

Plenary Lecture

Room : Plenary Hall

Chaired by: Nae-Lih Wu

08:15 to 09:15

Martin Winter (MEET Battery Research Center/Institute of Physical Chemistry, University of Muenster/ Helmholtz Institute Muenster HI MS, Muenster, Germany), Dennis Gallus, Ralf Wagner, Marius Amereller, Johannes Kasnatscheew, Elisabeth Kraemer, Steffen Krueger, Xin Qi, Ji Lie, Isidora Cekic-Laskovic

Neglected, Forgotten or Unimportant?Inactive Materials in Lithium Ion Batteries

Symposium 1: New Directions in Analytical Electrochemistry

Room : 103

Chaired by: Fethi Bedioui and Gunther Wittstock

09:30 to 10:10 Keynote **Early Career Analytical Electrochemistry Prize of ISE Division 1**

Jan Vacek (Department of Medical Chemistry and Biochemistry, Palacky University, Olomouc, Czech Republic)

Electrochemistry of Membrane Proteins

10:10 to 10:30

Judith Rishpon (Molecular Microbiology and Biotechnology, Tel-Aviv University, Tel-Aviv, Israel)

Combined Tyrosinase (A Multi-Potent Enzyme) and Electrodes Modified with nanoparticles for Fast and Highly Sensitive Environmental Monitoring and Medical Diagnostics

10:30 to 10:50

Tzu-En Lin (Chemistry and Chemical Engineering, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland), Fernando Cortés-Salazar, Andreas Lesch, Alexandra Bondarenko, Hubert Girault

Cancer Stage Identification by Scanning Electrochemical Microscopy: Investigation of Tyrosinase inside Melanoma Tissues

10:50 to 11:10

Coffee Break

Symposium 3: Batteries for Tomorrow's World

Room : 201AB

Chaired by: Claude Delmas

09:30 to 10:10 Keynote **Tajima Prize**

Yu-Guo Guo (Institute of Chemistry, Chinese Academy of Sciences (CAS), Beijing, China)

Advanced Cathodes and Metallic Anodes for Next-Generation Rechargeable Batteries

10:10 to 10:30

Louise Frenck (Environmental Energy Technologies Division, Lawrence Berkeley National Laboratory, Berkeley, USA), Renaud Bouchet, Philippe Stevens, Nitash Balsara

Study of ceramic-polymer/lithium interface for lithium air batteries

10:30 to 10:50

Hang Su (College of Energy & School of Energy Research, Xiamen Uinversity, Xiamen, China)

Hierarchical Mn_2O_3 Hollow Microspheres of high performance as Anode of LIBs and XANES studies of Conversion Reaction Mechanism

10:50 to 11:10

Coffee Break

Symposium 3: Batteries for Tomorrow's World

Room : 201C

Chaired by: Yong Joon Park

09:30 to 09:50 Invited

Nae-Lih WU (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Fu-Sheng Li, Yu-Shiang Wu, Jacky Chou, Martin Winter

Research on Polymeric Artificial Solid-Electrolyte-Interphase for Enhanced Performance of Li-ion Battery Anodes

09:50 to 10:10 Invited

Laurence Hardwick (Chemistry, University of Liverpool, Liverpool, United Kingdom), Vivek Padmanabhan, Richard Nichols

In situ infrared spectroscopy on gold substrates to track film formation and intermediates in Li-ion and Li-air electrolytes

10:10 to 10:30

Sven Uhlenbruck (Institute of Energy and Climate Research (IEK-1), Forschungszentrum Jülich GmbH, Jülich, Germany), Hans-Gregor Gehrke, Sandra Lobe, Chih-Long Tsai, Christian Dellen, Aiko Bünting, Martin Bitzer, Jürgen Dornseiffer, Tim Van Gestel, Olivier Guillon

Manufacturing and Performance of solid-state thin-film batteries

10:50 to 11:10

Coffee Break

Symposium 4: Advances in Fuel Cells from Materials to Systems

Room : 102

Chaired by: Shengli Chen

09:30 to 09:50 Invited

Shengli Chen (Chemistry Department, Wuhan University, Wuhan, China), Junxiang Chen, Yuwen Liu

Nature of Active Sites and Origin of Large Overpotential of the Oxygen Reduction Reaction on Pt(111) Surface

09:50 to 10:10

Yujia Deng (Department of Chemistry, University of Copenhagen, Copenhagen, Denmark), Matthias Arenz, Gustav K.H. Wiberg

The Steady State coverage of oxygenated species on Platinum and its influence on the Oxygen Reduction and Hydrogen Oxidation Reaction in acid electrolyte

10:10 to 10:30

Guy Denuault (Chemistry, University of Southampton, Southampton, United Kingdom), Samuel Perry

Amperometric Study of the Oxygen Reduction Reaction on Oxide Free Metals: Evidence for the Reduction of Pre-adsorbed Dioxygen and its Dependence on the Metal Substrate

10:30 to 10:50

Anthony Kucernak (Chemistry, Imperial College London, London, United Kingdom), Matthew Markiewicz, Christopher Zalitis, Christopher Zalitis, Matthew Markiewicz

Is the Tafel approximation sufficient to predict electrocatalyst performance in polymer electrolyte fuel cells?

10:50 to 11:10

Coffee Break

Symposium 5: Novel Insights to Electrochemical Capacitors

Room : 101A

Chaired by: Frédéric Favier

09:30 to 10:10 Keynote

François Béguin (Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Poznan, Poland), Patryk Przygocki, Qamar Abbas, Paula Ratajczak

The aqueous electrochemical capacitor: a high energy alternative solution to organic electrolyte-based systems

10:10 to 10:30 Invited

Mathieu Salanne (Laboratoire PHENIX / Maison de la Simulation, UPMC / CNRS, Paris, France), Clarisse Pean, Celine Merlet, Benjamin Rotenberg, Paul Madden, Pierre-Louis Taberna, Barbara Daffos, Patrice Simon, Yury Gogotsi, Matthieu Haeffele, David Limmer, David Chandler

The Electric Double Layer has a Life of its Own

10:30 to 10:50 Invited

Teresa A. Centeno (Coal, Science and Environment, Instituto Nacional del Carbón-CSIC, Oviedo, Spain), Belén Lobato, Gelines Moreno-Fernández, Andrea Balducci

Physico-Chemical Features of Carbons and their Behavior in Electrochemical Capacitors

10:50 to 11:10

Coffee Break

Symposium 7: Electrodeposition - The Frontier Approach in Material Science and Nanofabrication

Room : 101C

Chaired by: Rohan Akolkar and Dow Wei-Ping

09:30 to 09:50 Invited

Peter Broekmann (Department of Chemistry and Biochemistry, University of Bern, Bern, Switzerland), Hai Nguyen, Valentine Grimaudo, Pavel Moreno-Garcia, David Lechner, Florian Stricker, Andreas Riedo, Peter Wurz

Combining Superfill and Leveling Capabilities: New Hybrid Polymers for Advanced Damascene Applications

09:50 to 10:10 Invited

Kazuo Kondo (Ch.E., Osaka Prefecture University, Sakai, Japan), Van Ha

Extremely Fast Filling by V-shape TSV and Cu(I)thiolate accumulation

10:10 to 10:30

Wei-Yang Zeng (Chemical Engineering, National Chung Hsing University, Taichung, Taiwan), Wei-Ping Dow

Using Graphene as a Conducting Layer and Barrier Layer for high aspect ratio Through Silicon Via Filling

10:30 to 10:50

Chu-Chi Liu (Chemical Engineering, National Chung Hsing University, Taichung, Taiwan), Wei-Ping Dow

Microvia filling in an Acidic Copper Planting Bath with Insoluble Anodes

10:50 to 11:10

Coffee Break

THURSDAY AM

Symposium 8: Corrosion and Passivity

Room : 201D

Chaired by: Koji Fushimi

09:30 to 09:50

Yudai Yamamoto (Graduate School of Chemical Sciences and Engineering, Hokkaido University, Sapporo, Japan), Misako Jin, Yuichi Kitagawa, Takayuki Nakanishi, Yasuchika Hasegawa, Koji Fushimi

Local Measurement of Hydrogen Diffusion in Steel Sheet

09:50 to 10:10 Invited

Achim Walter Hassel (CD Laboratory COMBOX, Johannes Kepler University Linz, Linz, Austria)

Corrosion studies using non radioactive isotopes of H, Zn and Fe

10:10 to 10:50 Keynote

En-Hou Han (Institute of Metal Research, Chinese Academy of Sciences, Shenyang, China), En-Hou Han, Jianqiu Wang, Xinqiang Wu, Zhiming Zhang

Corrosion Electrochemistry and Surface Film Properties of Alloy 690 in High Temperature Pressurized Water

10:50 to 11:10

Coffee Break

Symposium 9: Electrocatalytic Materials

Room : 201EF

Chaired by: Chen-Hao Wang and Lin Zhuang

09:30 to 10:10 Keynote

Li-Chyong Chen (Center for Condensed Matter Sciences, National Taiwan University, Taipei, Taiwan), Kuei-Hsien Chen, Hsin-Cheng Hsu, He-yun Du, Indrajit Shown, Hsin-Chih Huang, Yu-Chung Chang, Chen-Hao Wang, Sung-Tung Chang

Macrocyclics, Graphene Oxides-based Nano-catalysts, and Related Hybrids for Fuel Cells and Solar Fuels

10:10 to 10:30

Ana Sofia Varela (Chemical Engineering, TU-Berlin, Berlin, Germany), Wen Ju, Peter Strasser

CO_2 Electroreduction on Heteroatom-doped Carbon Catalyst

10:30 to 10:50

Ida Hjorth (Chemical Engineering, Norwegian University of Technology and Science, Trondheim, Norway), Navaneethan Muthuswamy, De Chen

Effects from modifying carbon nanofiber supports on metal nanoparticle catalyzed CO_2 reduction

10:50 to 11:10

Coffee Break

Symposium 14: Modeling, Design and Characterization of Nanostructured, Electroactive and Multifunctional Materials

Room : 101D

Chaired by: Michael Holzinger

09:30 to 09:50

Masa-aki Haga (Department of Applied Chemistry, Chuo University, 1-13-27 Ksuga, Bunkyo-ku, Japan), Hiroaki Ozawa, Takumi Nagashima

Photoelectrochemical Response of Hetero-layer Films Composed of Redox-active Ru Complexes: Charge Trapping and Memory Effect

09:50 to 10:10

Iwona A. Rutkowska (Department of Chemistry, University of Warsaw, Warsaw, Poland), Pawel J. Kulesza

Development of Multifunctional Materials Composed of Selected Noble Metal and Metal Oxide Nanostructures for Efficient Electrocatalytic Oxidation of Small Organic Molecules

10:10 to 10:50 Keynote

Kim Daasbjerg (Department of Chemistry, Aarhus University, Aarhus, Denmark)

Novel Hybrid Materials Prepared from Polymer Brushes and Graphene

10:50 to 11:10

Coffee Break

Symposium 18: General Session

Room : 101B

Chaired by: Juan M. Feliu

09:30 to 09:50

Yann Leroux (Institut des Sciences Chimiques de Rennes, CNRS - Université de Rennes 1, Rennes Cedex, France), Sébastien Lhenry, Christophe Orain, Francoise Conan, Nathalie Cosquer, Nicolas Le Poul, Yves Le mest, Olivia Reinaud, Philippe Hapiot

Locally Self-induced "electro-click" onto self-assembled monolayer: Evidence for surface self-catalysis propagation.

09:50 to 10:10

Takashi Kakiuchi (Department of Chemistry of Functional Molecules, Konan University, Kobe, Japan), Masahiro Yamamoto

Single ion activity, pH, liquid junction potential, and the essence of electrochemistry: in response to "A pH centenary" by Robert de Levie

10:10 to 10:30

Jeyabharathi Chinnaya (Institute of Biochemistry, University of Greifswald, Greifswald, Germany), Paula Ahrens, Ulrich Hasse, Fritz Scholz

Does a link between multiple oxidation peaks of gold oxide formation and exposed crystal planes exist on polycrystalline gold?

10:50 to 11:10

Coffee Break

Thursday, 8 October 2015 - Afternoon

Symposium 1: New Directions in Analytical Electrochemistry

Room : 103

Chaired by: Sabine Szunerits; Jan Vacek

14:00 to 14:20
Fethi Bedioui (CNRS UTCBS 8258-Chimie ParisTech, Chimie ParisTech, Paris, France), Gonzalo Ramirez, Sophie Griveau, Minerva Alvaro, Silvia Gutierrez-Granados

In Vivo Electrochemical Assessment of Possible Melatonin Effect on Nitric Oxide Production From Kidneys of Sub-Acute Lead Treated Rats

14:20 to 14:40
Jan Clausmeyer (Analytische Chemie, Center for Electrochemical Sciences, Ruhr-Universität Bochum, Bochum, Germany), Yanjun Zhang, Miriam Marquitan, Ainara López Córdoba, Yuri Korchev, Wolfgang Schuhmann

Amperometric Nanosensors and Field-Effect Transistors for Extra- and Intracellular Chemical Analysis

14:40 to 15:00
Yu-Chen Chang (Chemical Engineering, National Taiwan University of Science and Tecnology, Taipei, Taiwan), Yi-Ting Chen, Guan-Lin Chen, Kuo-Chuan Ho, Wei-Hung Chiang

Controllable Synthesis of Heteroatom-Doped Carbon Nanotubes under Atmospheric Pressure and Their Electrocatalytic Ability to L-cysteine

15:00 to 15:20
Angelika Holzinger (Institute of Analytical and Bioanalytical Chemistry, University Ulm, Ulm, Germany), Peter Knittel, Jong Seok Moon, Christine Kranz

AFM Tip-integrated Antimony Electrodes for pH Detection

15:20 to 15:40
Ahmed (Galal) Abdo (Department of Chemistry, Faculty of Science - Kuwait University, Kuwait, Kuwait), Ekram El-Ads, Asmaa Ibrahim, Youssuf Mohamed, Nada Atta

Electrochemistry and Determination of Some Biomedical and Biological Molecules at Carbon –Based Ionic Liquid Crystals Composite Electrodes

15:40 to 16:00 Invited
Patrick Unwin (Department of Chemistry, University of Warwick, Coventry, United Kingdom)

Making Movies: Next Generation Electrochemical Imaging

16:20 to 16:40
Coffee Break

16:40 to 17:20 Keynote
Gunther Wittstock (Department of Chemistry, Carl von Ossietzky University of Oldenburg, Oldenburg, Germany), Heinz Bülter, Fabian Peters, Julian Schwenzel, Patrick Schwager, Daniela Fenske

Microelectrochemical in situ observation of battery electrodes

17:20 to 17:40 Invited
Jie Zhang (Chemistry, Monash University, Melbourne, Australia), Kiran Bano, Si-Xuan Guo, Alan Bond

Determination of Fast Electrode Kinetics Using Fourier Transformed Large Amplitude AC Voltammetry

17:40 to 18:00
Yi-Tao Long (Department of Chemistry, East China University of Science and Technology, ShangHai, China)

Ubiquinones: understanding electrochemistry from solution to surface

Symposium 3: Batteries for Tomorrow's World

Room : 201AB

Chaired by: Takeshi Abe

14:00 to 14:40 Keynote

K. Zaghib (Institut de Recherche dHydro-Québec, Varennes, Canada), P. Hovington, M. Lagacé, A. Guerfi, P. Bouchard, A. Mauger, C. M. Julien, M. Armand

New Lithium Metal Polymer Solid State Battery for an Ultrahigh Energy: Nano C-$LiFePO_4$ versus Nano $Li_{1.2}V_3O_8$

14:40 to 15:00 Invited

Kisuk Kang (Department of Materials Science and Engineering, Seoul National University, Seoul, Korea), Kyu-Young Park

Olivine with zero anti-site defect and three dimensional lithium diffusion paths

15:00 to 15:20

Reinhold Koch (RP06, TUM Create Ltd., Singapore, Singapore), Andreas Jossen

On the Influence of Mechanical Compression on the Impedance of Aged $LiFePo_4$ - Graphite Cells

15:20 to 15:40

Michael Palmer (Chemistry, University Of Southampton, Southampton, United Kingdom), John R. Owen, Andrew Hector

In-situ XRD of High Voltage Lithium Insertion Electrodes

15:40 to 16:00

Jagabandhu Patra (Institute of Materials Science & Engineering, National Central University, Taoyuan, Taiwan), Prem Prakash Dahiya, Jason Fang, Yu-Wei Lin, Chung-Jen Tseng, S. Basu, S. B. Majumder, Jeng-Kuei Chang

Electrochemical Performance of $0.5Li_2MnO_3$–$0.5Li(Mn_{0.375}Ni_{0.375}Co_{0.25})O_2$ Composite Cathode Using Pyrrolidinium-based Ionic Liquid Electrolytes

16:00 to 16:20

Ji Su Chae (Energy & Environmental Division, Korea Institute of Ceramic Engineering & Technology, Jinju-si, Korea), Sun-Min Park, Won-Sub Yoon

Understanding the Improved Electrochemical Properties of Li_2O-$2B_2O_3$ Coated $LiNi_{0.5}Mn_{1.5}O_4$ for Lithium-ion Batteries

16:20 to 16:40

Coffee Break

16:40 to 17:00

Raymond Wong (Byon Initiative Research Unit, RIKEN, Wako, Japan), Hye Ryung Byon

The Role of Defects and Oxygen Functionalities in Carbon Nanotube-based electrodes for the Lithium-oxygen Battery

17:00 to 17:20

Omar Samuel Mendoza-Hernandez (Department of Matarials Science and Technology, Nagaoka University of Technology, Nagaoka, Japan), Shuichi Taniguchi, Yuki Maruyama, Hiroaki Ishikawa, Yoshitsugu Sone, Minoru Umeda

Thermal Runaway Behavior of 18650 Li-ion Cells Before and After Storage Degradation at High Temperature

17:20 to 17:40

Hai-Jung Peng (Electrochemical Energy Storage Section, Paul Scherrer Institute, Villigen PSI, Switzerland), Sigita Urbonaite, Claire Villevieille, Hannes Wolf, Klaus Leitner, Petr Novak

Consequences of Electrolyte Degradation for the Electrochemical Performance of NCM Battery Materials

17:40 to 18:00

Xiaoyu Liu (Chemistry Department, Fudan University, Shanghai, China)

Surface phase transformation and CaF_2 coating for enhanced electrochemical performance of Li-rich Mn-based Cathodes

18:00 to 18:20
Jung-Chi Wang (Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei, Taiwan), Fu-Ming Wang
Forward and reverse differential-pulse applied in the formation of solid electrolyte interface with constant temperature addition in lithium ion battery

Symposium 3: Batteries for Tomorrow's World

Room : 201C

Chaired by: T. Richard Jow

14:00 to 14:20 Invited
Gao Liu (Energy Storage and Distributed Resources Division, Lawrence Berkeley National Laboratory, Berkeley, USA), Hui Zhao, Zhe Jia, Sang-Jae Park
Functional Conductive Polymer Binders Enabled High-stability Cycling of Alloy Anodes

14:20 to 14:40
Xiaopeng Li (Institute of Physics, Martin-Luther-Universität Halle-Wittenberg, Halle, Germany), Ralf Wehrspohn
High performance mesoporous metallurgical silicon nanowire anode for lithium ion batteries

14:40 to 15:00
Hiroyuki Usui (Graduate School of Engineering, Tottori University, Tottori, Japan), Masahito Nomura, Hiroki Nishino, Masatoshi Kusatsu, Tadatoshi Murota, Hiroki Sakaguchi
Gadolinium silicide/silicon composite anode for next-generation lithium-ion battery

15:00 to 15:20
Qihui Wu (Chemistry, Quanzhou Normal University, Quanzhou, China)
Ge@GeO_2 core@shell nanoparticles/multi-layer carbon composites as anode materials for lithium-ion batteries

15:20 to 15:40
Yingshun Li (School of Energy and Environment, City University of Hong Kong, Hong Kong, China), Jieqing He, Hui Zhou, Wenpei Kang, Denis Y. W. Yu
Enhancing cycling stability of tin dioxide anode for lithium-ion batteries with a stretchable polyimide matrix

15:40 to 16:00
Selina Tillmann (MEET Battery Research Center, University of Muenster, Muenster, Germany), Daniel Hermida Merino, Martin Winter, Isidora Cekic-Laskovic, Katja Loos
Block Copolymer-Templates for the Design of Three-Dimensional Interpenetrating Current Collectors for Submicrostructured Electrodes

16:00 to 16:20
Leiting Zhang (Department of Chemical and Biomolecular Engineering, The Hong Kong University of Science and Technology, Hong Kong, China), Jean-Marie Tarascon, Guohua Chen
Impact of Relative Humidity on Sulfate-based Cathode Materials

16:20 to 16:40
Coffee Break

16:40 to 17:00 **Oronzio and Niccolò De Nora Foundation Young Author Prize**
Peng Bai (Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA), Martin Z. Bazant
A Solid-Electrolyte-Enabled Lithium-Bromine Flow Battery

17:00 to 17:20
Edgar Ventosa (Department of Analytical Chemistry, University of Bochum, Bochum, Germany), Cristina Flox, Joan Ramon Morante, Wolfgang Schuhmann
Semi-solid flow battery: an emerging electrochemical system

17:20 to 17:40
Jee-Jay Chen (Chemical Engineering, University of Michigan - Ann Arbor, Ann Arbor, USA), Mark Barteau
Polyoxometalates for Non-aqueous Redox Flow Battery Applications

17:40 to 18:00
Georgios Nikiforidis (Byon Initiative Research Unit (IRU), RIKEN, Wako, Japan), Hye Ryung Byon
Improvements in the aqueous lithium-iodine battery

18:00 to 18:20
Luis F. Arenas (Faculty of Engineering and the Environment, University of Southampton, Saouthampton, United Kingdom), Carlos Ponce de Leon, Frank C. Walsh
Advances on the Zinc-Cerium Redox Flow Battery for Energy Storage

Symposium 4: Advances in Fuel Cells from Materials to Systems

Room : 102

Chaired by: Byungchan Bae and Yu Morimoto

14:00 to 14:40 Keynote
Yu Morimoto (Sustainable Energy & Environment Dept., Toyota Central R&D Labs., Inc., Nagakute, Japan), Masanori Inaba, Shuhei Yoshino, Masao Shibata, Tatsuya Hatanaka
Alternative PEFC Catalysts for Future Commercial FCVs

14:40 to 15:00
Kuan-Wen Wang (Institute of Materials Science and Engineering, National Central University, Taoyuan, Taiwan), Jeng-Han Wang, Yu-Ting Liang
The Performance and Stability of the Oxygen Reduction Reaction on Pt¡Vbased Nanorods: An Experimental and Computational Study

15:00 to 15:20
Tilman Jurzinsky (Applied Electrochemistry, Fraunhofer Institute for Chemical Technology, Pfinztal, Germany), Carsten Cremers, Karsten Pinkwart, Jens Tübke
A DEMS Study on the Influence of Ag Add-Atoms on Pd-based Catalysts for Methanol Oxidation in Alkaline Environment

15:20 to 15:40
Sayoko Shironita (Department of Materials Science and Technology, Nagaoka University of Technology, Nagaoka, Japan), Kazutaka Sato, Kazuma Yoshitake, Minoru Umeda
Pt-Ru/C Anode Performance of Polymer Electrolyte Fuel Cell under Carbon Dioxide Atmosphere

15:40 to 16:00
Evgeniy Gribov (Group of Adsorption & catalytic processes for fuel cells, Boreskov Institute of Catalysis, Novosibirsk, Russia), Aleksey Kuznetsov, Viktor Golovin, Dmitriy Krasnikov, Vladimir Kuznetsov, Aleksey Okunev
The Oxygen Electroreduction Reaction Performance of Pt Catalysts Supported on Commercial Blacks and Nanostructured Carbons: Multiwall Nanotubes and Nanofibers

16:00 to 16:20
Fen Guo (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Dianxue Cao, Ke Ye, Kui Cheng, Mengmeng Du, Dongming Zhang
Preparation of Ni-Co Nanowire Arrays Anode Electrocatalyst and the Performance of Direct Urea-Hydrogen Peroxide Fuel Cell

16:20 to 16:40
Coffee Break

16:40 to 17:00
Jianguo Liu (College of Engineering and Applied Sciences, Nanjing University, Nanjing, China), Jin Xie, Zhigang Zou
Well-ordered Ru@Pt Core-shell Nanocatalysts with Tunable Composition and Enhanced Electrocatalytic Properties

17:00 to 17:20
Byungchan Bae (Fuel Cell Laboratory, Korea Institute of Energy Research, Yuseong-gu, Daejeon, Korea)
Development of Sulfonated Poly(Arylene Ether Sulfone) Multi-Block Membranes for PEMFC Application

17:20 to 17:40
Kwong-Yu Chan (Department of Chemistry, The University of Hong Kong, Pokfulam Road, Hong Kong, China)
Ion Exchange Polymer Threaded in MOF as a Potential Electrolyte with Fast Exchange and High Selectivity

17:40 to 18:00
Michael Eikerling (Department of Chemistry, Simon Fraser University, Burnaby, Canada), Mahdi Ghelichi, Pierre-Eric Alix Melchy
Modeling of Structure Formation and Fracturing in Polymer Electrolyte Membranes

18:00 to 18:20
Sangaraju Shanmugam (Energy Systems Eng, DGIST, Daegu, Korea), Kriangsak Ketpang
Development of Composite Electrolyte Membranes for Polymer Electrolyte Fuel cells Operating at Low Humidity

Symposium 5: Novel Insights to Electrochemical Capacitors

Room : 101A

Chaired by: Thierry Brousse, François Béguin, Daniel Bélanger and Teresa A. Centeno

14:00 to 14:20 Invited
John R. Miller (JME, Inc. and Case Western Reserve University, JME, Inc. and Case Western Reserve University, Beachwood, USA)
Valuing Electrochemical Capacitor Technology

14:20 to 14:40
Hsisheng Teng (Chemical Engineering, National Cheng Kung University, Tainan, Taiwan), Wei Hsieh, Hsin-Chieh Huang
Facile Simulation of Electric Double-Layer Capacitance Based on Helmholtz Models

14:40 to 15:00 Invited
Masashi Ishikawa (Chemistry and Materials Engineering, Kansai University, Japan), Masaki Yamagata
Advanced Auxiliary Materials in EDLC for Enhancing Power and Energy

15:00 to 15:20 Invited
Patrice Simon (CIRIMAT, Université Paul Sabatier, Toulouse, France), Barbara Daffos, Wan Yu Tsai, Peihua Huang, Kevin Brousse, Pierre-Louis Taberna
Recent advances on the understanding of ion adsorption/transfer in nanoporous carbon electrodes: application to supercapacitors

15:20 to 15:40
Indrek Tallo (Institute of Chemistry, University of Tartu, Tartu, Estonia), Ester Tee, Enn Lust, Thomas Thomberg, Heisi Kurig, Alar Jänes
Surprisingly Large Improvements in SiC-CDC Based EDLC via Simple CO_2 Activation Method

15:40 to 16:00 Invited
Masayuki Morita (Department of Applied Chemistry, Graduate School of Science, Yamaguchi University, Ube, Japan), Takuma Izumi, Yuya Noguchi, Masahiro Tokita, Kenta Fujii, Nobuko Yoshimoto

Influences of Residual Water in Porous Carbon Electrodes on Their Cycling Behavior in Organic Electrolyte Solutions

16:00 to 16:20
Juhan Lee (Energy Materials Group, INM - Leibniz Institute for New Materials, Saarbruecken, Germany), Daniel Weingarth, Volker Presser

Hybrid capacitors for moderate energy storage and high power applications: double layer formation and soluble redox couples

16:20 to 16:40
Coffee Break

16:40 to 17:00 Invited
Chi-Chang Hu (Department of Chemical Engineering, National Tsing Hua University, Hsinchu, Taiwan), Arturas Adomkevicius, Shin-Ming Li, Tzu-Man Ou

Preparation and characterization of Mn oxide-based composites for high-performance asymmetric supercapacitors

17:00 to 18:20
Panel Discussion about Novel Insights to Electrochemical Capacitors

Symposium 7: Electrodeposition - The Frontier Approach in Material Science and Nanofabrication

Room : 101C

Chaired by: Alexander Vaskevich

14:00 to 14:20
Jon Ustarroz (Electrochemical and Surface Engineering (SURF), Vrije Universiteit Brussel, Brussels, Belgium), El Amine Mernissi Cherigui, Bart Geboes, Kadir Sentosun, Pieter Bouckenooge, Herman Terryn, Sara Bals, Tom Breugelmans, Annick Hubin

Electrodeposition of Electrocatalytic Nanostructures from Aqueous Solutions and Deep Eutectic Solvents: Aggregative Growth

14:20 to 14:40
Philip Bartlett (Chemistry, University of Southampton, Southampton, United Kingdom)

Electrodeposition of Nanowires and Nanostructures from Supercritical Fluids

14:40 to 15:00
Lu Chen (Chemistry Department, Monash University, Melbourne, Australia), Mike Horne, Alan Bond, Jie Zhang

Room Temperature Electrodeposition of Metallic Magnesium from Ethylmagnesiumbromide/Tetrahydrofuran and Ionic Liquid Mixtures

15:00 to 15:20 Invited
Tso-Fu Mark Chang (Precision and Intelligence Laboratory, Tokyo Institute of Technology, Yokohama, Japan), Wei-Hao Lin, Chun-Yi Chen, Yung-Jung Hsu, Chi-Chang Hu, Tatsuo Sato, Masato Sone

Conducting Electrochemical Deposition Reactions in Supercritical Carbon Dioxide Emulsified Electrolyte

15:20 to 15:40
Jinqiu Zhang (School of Chemical Engineering and Technology, Harbin Institute of Technology, Harbin, China), Xing Gu, Peixia Yang, Maozhong An

Electrodeposition Process of Ni-Ga Bimetallic Catalyst in BMIm-OTF Ionic Liquid Electrolyte

15:40 to 16:00
Zenglin Wang (School of Chemistry and Chemical Engineering, Shaanxi Normal University, Xi'an, China), Shaojun Ren, Zhanwu Lei

Investigation Nitrogen Heterocyclic Compounds as Levelers for Electroplating Cu Filling by Electrochemical Method and Quantum Chemical Calculation

16:00 to 16:20
Chiao-Chien Wei (Wet Deposition, BASF AP, Taoyuan, Taiwan), Eric Chou, Shih-Ming Lin, Steve Shih

Bottom-up Filling of Damascene Trenches with Cobalt by Electroplating Process

16:20 to 16:40
Coffee Break

16:40 to 17:00
Ryoichi Aogaki (Electronic Engineering, Polytechnic University, Tokyo, Japan), Ryoichi Morimoto, Miki Asanuma, Iwao Mogi, Atushi Sugiyama, Makoto Miura, Yoshinobu Oshikiri, Yusuke Yamauchi

Chloride Effect on Chiral Catalytic Activity in Magnetoelectrodeposition

17:00 to 17:20
Po-Fan Chan (Chemical Engineering, National Chung Hsing University, Taichung, Taiwan), Wei-Ping Dow

The Spontaneous Potential Oscillations in a Galvanostatic Copper Electrodeposition

17:20 to 17:40
Iwao Mogi (Institute for Materials Research, Tohoku University, Sendai, Japan), Ryoichi Aogaki, Kazuo Watanabe

Chirality Induction by Galvanostatic Magnetoelectrodeposition

17:40 to 18:00
Alexander Vaskevich (Materials and Interfaces, Weizmann Institute of Science, Rehovot, Israel), Mariano Susman, Israel Rubinstein

Chemical Deposition and Galvanic Replacement of Morphologically Controlled Cu_2O Nanoparticle Films

18:00 to 18:20
Yao-Lin Tsai (Chemical Engineering, National Chung Hsing University, Taichung, Taiwan), Wei-Ping Dow

Using Cu Nanoparticles as Catalysts of Electroless Copper Deposition for Metallization of a Printed Circuit Board

Symposium 9: Electrocatalytic Materials

Room : 201EF

Chaired by: Fabio Dionigi, Anthony Kucernak, Jun Maruyama and Yan Shen

14:00 to 14:20 Invited
Jun Maruyama (Environmental Technology Research Division, Osaka Municipal Technical Research Institute, Osaka, Japan), Tsutomu Shinagawa

Catalyst Layer Structures for Enhancement of Redox Reactions of Oxovanadium Ions

14:20 to 14:40
Yan Shen (Wuhan National Laboratory for Optoelectronics, HuaZhong University of Science and Technology, Wuhan, China)

Self-Supported Co_4FeP Nanosheet Arrays Supported on Carbon Cloth: An Efficient Catalyst for Electrochemical Hydrogen Evolution

14:40 to 15:00
Sho Fujita (Chemical and Energy Engineering, Yokohama National University, 240-8501 Yokohama, Japan), Koichi Matsuzawa, Yuji Kohno, Ikuo Nagashima, Yoshio Sunada, Akiyoshi Manabe, Yoshinori Nishiki, Shigenori Mitsushima

Property of Oxide Film and Activity of $Li_xNi_{2-x}O_2$/Ni Anode for Alkaline Water Electrolysis

15:00 to 15:20

Xi Cheng (Electrochemistry Laboratory, Paul Scherrer Institute, Villigen PSI, Switzerland), Emiliana Fabbri, Maarten Nachtegaal, Raphael Haumont, Thomas Justus Schmidt

Oxygen evolution reaction: correlation between electronic property and OER activity for $La_{1-x}Sr_xCoO_{3-}$ (x=0, 0.2, 0.4, 0.6, 0.8, 1) perovskite oxides

15:20 to 15:40

Wenting Xu (Department of Materials Science and Engineering, Norwegian University of Science and Technology, Trondheim, Norway), Geir Martin Haarberg, Svein Sunde

Electrochemical Performance of Oxygen Evolving Anodes in Sulphate Electrolyte for Copper Electrowinning

15:40 to 16:00

Juan Manriquez (Department of Research, Cideteq, Pedro Escobedo, Mexico)

Electrocatalytic oxidation of urea on Ni(II)cyclam-modified nanoparticulate TiO_2 anodes for promoting the H_2 evolution on Pt counterelectrodes

16:00 to 16:20

Ruud Kortlever (Catalysis and Surface Chemistry, Leiden University, Leiden, Netherlands), Ines Peters, Collin Balemans, Meital Shviro, Youngkook Kwon, David Zitoun, Marc T.M. Koper

Electrochemical CO_2 Reduction on Pd-based Bimetallic Catalysts

16:20 to 16:40

Coffee Break

16:40 to 17:00

Chun-Ting Li (Chemical Engineering, National Taiwan University, Taipei, Taiwan), Chuan-Pei Lee, I-Ting Chiu, Kuo-Chuan Ho

Earth Abundant Iron Diselenide Nanorod Arrays as the Flexible Electro-Catalytic Counter Electrode for Dye-Sensitized Solar Cells

17:00 to 17:20

Fabio Dionigi (Department of Chemical Engineering, Technische Universität Berlin, Berlin, Germany), Tobias Reier, Zarina Pawolek, Manuel Gliech, Peter Strasser

Activity and Selectivity of NiFe Layered Double Hydroxide Electrocatalyst for Seawater Electrolysis

17:20 to 17:40

Carlos M. Sanchez-Sanchez (Laboratoire Interfaces et Systèmes Electrochimiques (LISE), CNRS UMR8235 - Sorbonne Universités, UPMC Univ Paris 06, Paris, France), Florin A. Hanc-Scherer, Enrique Herrero

Electrochemical CO_2 Reduction at Platinum Surface Structured Electrodes in Room Temperature Ionic Liquids

17:40 to 18:00

Loreta Tamasauskaite-Tamasiunaite (Department of Catalysis, Center for Physical Sciences and Technology, Vilnius, Lithuania), Ausrine Zabielaite, Svetlana Lichusina, Agne Matuseviciute, Dijana Simkunaite, Algirdas Selskis, Eugenijus Norkus

Investigation of Hydrazine Oxidation at Co Fiber Structure Decorated with Pt Nanoparticles

18:00 to 18:20

Han Wang (Department of Chemistry, Fudan University, Shanghai, China), Han Wang, Wen-Bin Cai

Pt (Pd) Monolayer on Au Formed by One-Pot Chemical Process with Enhanced Electrocatalytic Performance on Ethanol Oxidation

Symposium 11: New Important Frontiers in Molecular Electrochemistry

Room : 201D

Chaired by: Chun-hsien Chen, Toshio Fuchigami, Jiri Ludvik and Armando Pombeiro

14:00 to 14:40 Keynote **Jaroslav Heyrovsky Prize for Molecular Electrochemistry**

Flavio Maran (Chemistry, University of Padova, Padova, Italy)

Molecular Electrochemistry: from Protons to Electrons, from Molecules to Molecular Nanoclusters

14:40 to 15:00

Dongil Lee (Department of Chemistry, Yonsei University, Seoul, Korea)

Electrochemistry of Atomically Precise Metal Nanoclusters

15:00 to 15:20 Invited

M. Fátima C. Guedes da Silva (Centro de Química Estrutural, Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal)

Electron-transfer Induced Reactions in Ru and Sn Complexes with Biological Activity

15:20 to 15:40

Eric Labbe (Departement de Chimie, Ecole Normale Superieure, Paris, France), Jose de Jesus Cazares-Marinero, Olivier Buriez, Christian Amatore, Gerard Jaouen, Hui Zhi Shirley Lee, Pascal Pigeon, Siden Top, Weng Kee Leong

An electrochemical overview of the oxidative chemistry of ferrocenophanic and ruthenocene antiproliferative drugs

15:40 to 16:00

James Y. Becker (Chemistry, Ben-Gurion University of the Negev, Beer Sheva, Israel), Tatiana Golub

The Effect of Ring-Size on the Anodic Oxidation of Cyclic Amides

16:00 to 16:20 Invited

Zhifeng Ding (Chemistry, The University of Weastern Ontario, London, Canada)

Electrochemiluminescence of Quantum Dots and Clusters

16:20 to 16:40

Coffee Break

16:40 to 17:20 Keynote

Kazuhiro Chiba (Applied Biological Science, Tokyo University of Agriculture and Technology, Tokyo, Japan), Takao Shoji, Yohei Okada, Shokaku Kim

Anodic Synthesis of Unnatural Peptide and Nucleic Acid Derivatives

17:20 to 17:40

Jingxian Yu (Department of Chemistry, The University of Adelaide, Adelaide, Australia), John Horsley, Andrew Abell

Tunable Peptide-Based Molecular Wires: Experimental Evidence and Theoretical Insights

17:40 to 18:00

Chengchu Zeng (College of Life-Science & Bioengineering, Beijing University of Technology, Beijing, China), Nanning Lu, Longji Li

Electrochemically Induced Friedel-Crafts Arylation of Chalcone Epoxides and Enamides by Organic Redox Mediators

18:00 to 18:20

Jiri Ludvik (Molecular Electrochemistry, J. Heyrovský Institute of Physical Chemistry ASCR, Prague, Czech Republic), Tomas Mikysek, Hana Kvapilova, Frantisek Josefik

Oxazaborine and Triazaborine Chromophores,Electrochemical and Theoretical Study

18:20 to 18:40

Wenrong Yang (School of Life and Environmental Sciences, Deakin University, Waurn Pond, Australia)

Real-time Electrochemical Monitoring Covalent Bond Formation in Solution via Nanoparticle-Electrode Collisions

Symposium 14: Modeling, Design and Characterization of Nanostructured, Electroactive and Multifunctional Materials

Room : 101D

Chaired by: Line Koefoed and Stefania Rapino

14:00 to 14:20 Invited
Yoshitaka Tateyama (International Center for Materials Nanoarchitectonics, National Institute for Materials Science, Tsukuba, Japan), Keisuke Ushirogata, Keitaro Sodeyama, Yukihiro Okuno

DFT-MD Study on Formation Processes of Solid Electrolyte Interphase at Negative Electrode Interfaces in Lithium-Ion Battery

14:20 to 14:40
Louzhen Fan (Department of Chemistry, Beijing Normal University, Beijing, China), Xiaoyun Tan, Ruihua Guo

Electrochemical Synthesis of Red Fluorescent Graphene Quantum Dots for the Bioimaging Platform

14:40 to 15:00
Xingxing Chen (School of Chemical Engineering, University of Science and Technology Liaoning, Anshan, China), Justus Masa, Alexander Botz, Daniela Wintrich, Wolfgang Schuhmann

Evaluation of Bifunctional Electrocatalysts for Oxygen Reduction and Evolution by Means of Scanning Electrochemical Microscopy (SECM)

15:00 to 15:20
Alessandro Minguzzi (Dipartimento di Chimica, Università degli Studi di Milano, Milan, Italy), Elisabetta Achilli, Francesco D'Acapito, Alberto Naldoni, Francesco Malara, Cristina Locatelli, Alberto Vertova, Paolo Ghigna

Observation of Charge Transfer Cascade in α-Fe_2O_3/IrO_2 Photoanodes by In-Operando X-Rays Absorption Spectroscopy

15:20 to 15:40
Joaquin Rodriguez-Lopez (Department of Chemistry, University of Illinois at Urbana-Champaign, Urbana, USA), Jingshu Hui, Richa Bhargava, Xuan Zhou, Adam J. Chinderle

The Impact of Short-Range Electronic Interactions on the Electrochemical Activity of Single- and Few-Layer Graphene

15:40 to 16:20 Keynote
Michael Holzinger (Département de Chimie Moléculaire (DCM), University of Grenoble Alpes - CNRS, Grenoble, France)

Graphene and Carbon Nanotubes for Bioelectrochemical applications

16:20 to 16:40
Coffee Break

16:40 to 17:00 Invited
Giovanni Valenti (Chemistry G. Ciamician, University of Bologna, Bologna, Italy), Alessandro Boni, Tiziano Montini, Massimo Marcaccio, Stefania Rapino, Paolo Fornasiero, Maurizio Prato, Francesco Paolucci

Co-axial Nanostructures for CO_2 Conversion: Synergic Effects between Carbon Nanotubes and Metal Oxides

17:00 to 17:20
Kristina Tschulik (Chemistry, University of Oxford, Oxford, United Kingdom), Richard Compton

Nano-Impacts – Studying Magnetic Field Effects on Single Magnetite Nanoparticles in Solution

17:20 to 17:40
Line Koefoed (Department of Chemistry and iNANO, Aarhus University, Aarhus C, Denmark), Kyoko Shimizu, Steen Uttrup Pedersen, Kim Daasbjerg, Alexander Kuhn, Dodzi Zigah

Simultaneous Covalent Assembling of Two Different Organic Films on Glassy Carbon Using Bipolar Electrochemistry

17:40 to 18:00
Stefania Rapino (Department of Chemistry G. Ciamician, University of Bologna, Bologna, Italy), Emanuele Treossi, Vincenzo Palermo, Massimo Marcaccio, Francesco Zerbetto, Francesco Paolucci

Scanning Electrochemical Microscopy for Probing the Properties of 2D Materials

18:00 to 18:20
Mikhail A. Vorotyntsev (Chemistry Department, D. Mendeleev University of Chemical Technology of Russia, Moscow, Russia), Dmitry V. Konev, Olga I. Istakova, Olga A. Sereda, Maria A. Chamraeva, Charles H. Devillers

Spectroelectrochemistry in the Course of Oxidative Electrolysisas a Tool to Determine the Molecular Structure of Electroactive Polymer Based on Mg(II) Porphine

18:20 to 18:40
Susana Cordoba de Torresi (Instituto de Quimica, Universidade de São Paulo, São Paulo, Brazil), Fabian A. Cerda Pastrian, Andreson Marques, Pedro H.C. Camargo

Tuning the electrocatalytic properties of Cu_2O nanoparticles by controlling size and geometry

Symposium 18: General Session

Room : 101B

Chaired by: Leigh Aldous and Yann Leroux

14:00 to 14:20
Alexander Oleinick (Departement de Chimie, CNRS-ENS-UPMC UMR 8640 PASTEUR, Paris, France), Oleksii Sliusarenko, Irina Svir, Christian Amatore

Validating a Central Approximation in Theories of Regular and Random Electrochemical Electrode Arrays

14:20 to 14:40
Ana Fernández-la-Villa (R&D, Micrux Technologies, Oviedo, Spain), Diego F. Pozo-Ayuso, Mario Castaño-Álvarez

New Strategies to Manufacture Low-cost Thin-film MicroElectrode Arrays for Electroanalysis

14:40 to 15:00
Ying Wan (School of Mechanical Engineering, Nanjing University of Sciencie and Technology, Nanjing, China), Pengjuan Wang, Yan Su

Surface-Initiated Enzymatic Polymerization Based Signal Amplification Strategies for Sensitivity Improvement of Electrochemical DNA Sensors

15:00 to 15:20
Conchi Ania (INCAR, CSIC, Oviedo, Spain), Alicia Gomis-Berenguer, Naiara Hernández-Ibañez, Jesus Iniesta

Conductive mesoporous carbon electrodes for biosensing applications

15:20 to 15:40
Maria Cuartero (Department of Inorganic and Analytical Chemistry, University of Geneva, Geneva, Switzerland), Gaston Crespo, Eric Bakker

Thin Layer Ionophore-Based Membranes Electrochemically modulated by Poly(3-octylthiophene) for Multianalyte Detection

15:40 to 16:00
Saimon Moraes Silva (Chemistry, The University of New South Wales, Sydney, Australia), Roya Tavallaie, Muhammed Alam, J. Justin Gooding

Electrochemical Characterization of Gold-Coated Magnetic Nanoparticles as 'Dispersible Electrodes'

16:00 to 16:20
Jen-Yuan Wang (Physics Division, Institute of Nuclear Energy Research, Taoyuan, Taiwan), Tse-Chuan Chou, Lin-Chi Chen, Kuo-Chuan Ho

Amperometric Detection of Hemoglobin A1c using a Poly(3-aminophenylboronic acid) Thin Film with Binding-Induced Ion Flux Blocking

16:20 to 16:40 Coffee Break

16:40 to 17:00

Alicia Gomis-Berenguer (Procesos químicos en energía y medio ambiente, Instituto nacional del carbón (INCAR-CSIC), Oviedo, Spain), Verónica Celorrio, David J. Fermín, Jesus Iniesta, Conchi O. Ania

A glance at the photoelectrochemical response of nanoporous carbon/semiconductor electrodes

17:00 to 17:20

Leigh Aldous (School of Chemistry, The University of New South Wales, The University of New South Wales, Sydney, Australia), Wuan Xin Teh, Trang Quynh To, Sean Cadogan

Ferrocenium triiodide ionic liquids: Synthesis, electron transfer and their (thermo)electrochemical waste heat harvesting properties

17:20 to 17:40

Dan Nguyen Dang (UR ABTE - EA 4651 & CRISMAT UMR6508 CNRS, IUT de Caen, Univ. Caen Basse-Normandie, Caen, France), Stéphanie Gascoin, Cosmelina G. Da Silva, Richard Retoux, Benoît Riffault, Daniel Chateigner, Otavio Gil

Volume Synthesis of Calcareous Deposit on Carbon Steel in Natural Seawater: Effect of Two-Step Applied Potential Waveform

17:40 to 18:00

Zhang Dalei (College of Mechanical and Electronic Engineering, China University of Petroleum, Qingdao, China)

Wire Beam Electrode Technique for Investigation Galvanic Corrosion Behavior between Zinc and Carbon Steel

18:00 to 18:20

Miikka Jokinen (Department of Chemistry, Aalto University, Espoo, Finland), José A. Manzanares, Kyösti Kontturi, Lasse Murtomäki

Thermal membrane potential - Application to thermoelectric power generation

Friday, 9 October 2015

ROOMS:	101A	101B	101C	101D	102	103	201AB	201EF	201C	201D
SYMPOSIUM	**s09**	**s18**	**s07**	**s14**	**s04**	**s01**	**s03**	**s09**	**s03**	**s11**
08:15 - 09:15	Plenary Lecture: Alan Bond (Plenary Hall)									
09:30 - 09:50	Chuan Zhao	Aicheng Chen	Shuehlin Yau	Enrico Verlato	Nguyen Minh	Gaston Crespo	T. Richard Jow	Chia-Ying Chiang	Helmut Baltruschat	Wenjing Hong
09:50 - 10:10	Dejin Zang		Andrew Lodge	Guobao Xu	Aziz Nechache	Daniel Mandler		Atif Koca	James T. Frith	Toshio Fuchigami
10:10 - 10:30	Wei-Fu Chen	A. I. Mardare	W. Schwarzacher	Kenta Imai	Anne Hauch	Damien Arrigan	Liwei Zhao	Petr Krtil	Guoqing Wang	J-M. Saveant
10:30 - 10:50	Zhaoxiong Xi	Micheal Scanlon	Marco Musiani	Joanna Dolinska	Sergey Rashkeev	Lin-Chi Chen	K. Tsunashima	Daniel Guay	Jing-Hua Tian	
10:50 - 11:10	Coffee Break									
11:10 - 11:30	Lindsay Wilson	Sung-Wook Kim	Damian Kowalski	Gyeong S. Hwang	L. Fernandez Macia	Zhang Meining	W. Wieczorek	Wen-Bin Cai	Masaki Yamagata	Joanne Tory
11:30 - 11:50	Erika Bustos		Jianming Li		Junfu Bu		K. Uta Schwenke	Chr. Engelbrekt	Fu-Ming Wang	Xinsheng Zhang
11:50 - 12:10	Xue Leng		H. Kazimierczak	S. Cordoba de T.			A. M. Haregewoin	Kobra Ghobadi	Masahiro Shimizu	Hiroyuki Ueda
12:10 - 12:30	Chen-Hao Wang		Derck Schlettwein	Herenilton Oliveira			Chao Xu	Cheng-Lan Lin	Seung Sik Hwang	
Closing Ceremony 12:30 to 12:50 (Plenary Hall)										

Friday, 9 October 2015 - Morning

Plenary Lecture

Room : Plenary Hall

Chaired by: Justin Gooding

09:15 to 09:15 **Electrochimica Acta Gold Medal**

Alan Bond (Chemistry, Monash University, Clayton, Australia)

A Voltammetric Odyssey: From Homogeneous Dropping Mercury to Heterogeneous Macro and Nano Electrodes; From the Manual Era to Advanced Automated High Speed Computation

Symposium 1: New Directions in Analytical Electrochemistry

Room : 103

Chaired by: Jyh-Myng Zen and Jie Zhang

09:30 to 09:50

Gaston Crespo (Inorganic and Analytical Chemistry, University of Geneva, Geneva, Switzerland), Majid Ghahraman Afshar, Eric Bakker

Selective Proton Pump for Thin Layer Chemical Modulations

09:50 to 10:10

Daniel Mandler (Institute of Chemistry, Hebrew University of Jerusalem, Jerusalem, Israel), Shlomit Kraus, Netta Bruchiel-Spanier, Yamit Pisman, Maria Hitrik

Nanoparticles Imprinted Polymers (NIP): Speciation of Nanoparticles

10:10 to 10:30

Damien Arrigan (NRI & Chemistry, Curtin University, Perth, Australia), Yang Liu, Masniza Sairi, Gregor Neusser, Christine Kranz

Achieving diffusional independence in arrays of liquid-liquid nanointerfaces: improving the electroanalytical performance

10:30 to 10:50

Lin-Chi Chen (Department of Bio-Industrial Mechatronics Engineering, National Taiwan University, Taipei, Taiwan), Chieh-Wen Yao, Chia-Hao Chang, Chih-Hao Chen, Che-Lun Chang, Hung-Yun Liao

Stability-enhanced Screen-Printed Ion-Selective Electrodes (SPISEs) for Plant Factory and Smart Farming Applications

10:50 to 11:10

Coffee Break

11:10 to 11:30

Zhang Meining (Department of Chemistry, Renmin University of China, Beijing, China)

Patterning of Microelectrode Array with soft lithography for Biological Sensing

Symposium 3: Batteries for Tomorrow's World

Room : 201AB

Chaired by: She-huang Wu

09:30 to 10:10 Keynote

T. Richard Jow (Energy and Power Division, U.S. Army Research Laboratory, Adelphi, USA), Jan Allen, Joshua Allen, Samuel Delp, Jeffrey Wolfenstine

Challenges and Progress in Developing High Voltage Li-ion Batteries

10:10 to 10:30

Liwei Zhao (Elements Strategy Initiative for Catalysts and Batteries, Kyoto University, Fukuoka, Japan), Shigeto Okada

A comparison of the thermal stability of electrolytes for Li- and Na-ion batteries

10:30 to 10:50

Katsuhiko Tsunashima (Department of Materials Science, National Institute of Technology, Wakayama College, Wakayama, Japan), Hayato Fujimoto, Hsien Hau Wang, Larry Curtiss, Khalil Amine, Youhei Mizuguchi

Electrochemical Behavior of Oxygen in Phosphonium Ionic Liquids as Electrolytes for Lithium Air Batteries

10:50 to 11:10

Coffee Break

11:10 to 11:30 Invited

W. Wieczorek (Faculty of Chemistry, Warsaw University of Technology, Warsaw, Poland), M. Dranka, J. Zachara, Marek Marcinek, L. Niedzicki, M. Kalita, Anna Bitner-Michalska, G. P. Jankowski, Z. Zukowska

Studies on ionic transport in liquid and polymeric electrolytes based on novel organic salts

11:30 to 11:50

K. Uta Schwenke (Technical Electrochemistry, Technische Universität München, Garching bei München, Germany), Sophie Solchenbach, Benjamin Strehle, Michael Metzger, Stefano Meini, Julien Demeaux, Brett L. Lucht, Hubert A. Gasteiger

The impact of CO_2 evolved from the reduction of VC and FEC during the formation cycle of lithium-ion batteries

11:50 to 12:10

Atetegeb Meazah Haregewoin (Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan)

Design of Sulfur Based Electrolyte Additives for Advanced Lithium-ion Batteries

12:10 to 12:30

Chao Xu (Department of Chemistry-Angström Laboratory, Uppsala University, Uppsala, Sweden), Fredrik Lindgren, Bertrand Philippe, Mihaela Gorgoi, Fredrik Björefors, Kristina Edström, Torbjörn Gustafsson

Improved Performance of Silicon Anode for Li-Ion Batteries: Understanding the Surface Modification Mechanism of Fluoroethylene Carbonate as an Effective Electrolyte Additive

Symposium 3: Batteries for Tomorrow's World

Room : 201C

Chaired by: Gao Liu

09:30 to 09:50

Helmut Baltruschat (Chemistry, University of Bonn, Bonn, Germany), Christoph Bondue

Oxygen Reduction and Evolution for Li-Air batteries: Role of the Electrocatalyst

09:50 to 10:10

James T. Frith (Chemistry, University of Southampton, Southampton, United Kingdom), Luyi Yang, Nuria Garcia-Araez, John R. Owen

Homogeneous Catalysts for Li-Oxygen Cells

10:10 to 10:30

Guoqing Wang (School of Materials Science and Engineering, Zhejiang University, Hangzhou, China), Shuangyu Liu, Jian Xie, Fangfang Tu, Shichao Zhang, Tiejun Zhu, Gaoshao Cao, Xinbing Zhao

RuO_2-nanoparticles-coated δ-MnO_2 as efficient catalytic cathode for high-performance Li-O_2 batteries

10:30 to 10:50

Jing-Hua Tian (School of Energy, Soochow University, Suzhou, China), Yujiao Xu, Yue Fu, Jin Wang, Ruizhi Yang

Synthesis and Catalytic Activity of Ni Doped $CoFe_2O_4$ Hollow Nanospheres as Bi-funcitonal Catalysts for Lithium Air Batteries

10:50 to 11:10

Coffee Break

11:10 to 11:30

Masaki Yamagata (Faculty of Chemistry, Materials and Bioengineering, Kansai University, Suita, Japan), Yukiko Matsui, Takuya Takahashi, Satoshi Uchida, Masashi Ishikawa

How to make an ideal electrolyte based on bis(trifluorosulfonyl)imide-based ionic liquid for lithium-ion and lithium-sulfur batteries

11:30 to 11:50

Fu-Ming Wang (Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei, Taiwan)

Self Terminated Oligomer Branched Architecture (STOBA) in lithium ion battery

11:50 to 12:10

Masahiro Shimizu (Chemistry and Biotechnology, Tottori University, Tottori, Japan), Hiroyuki Usui, Hiroki Sakaguchi

Application of ionic liquid electrolytes to Si electrode as a Li-ion battery anode

12:10 to 12:30

Seung Sik Hwang (Energy Lab, Samsung Advanced Institute of Technology, Samsung Electronic, Suwon-si, Korea), Jun-Hwang Ku, Jae-Man Choi

Lithium Containing Polymeric Binder for Improved Performance of Li-Ion Batteries

Symposium 4: Advances in Fuel Cells from Materials to Systems

Room : 102

Chaired by: Anne Hauch and Nguyen Minh

09:30 to 09:50 Invited

Nguyen Minh (Center for Energy Research, University of California, San Diego, La Jolla, USA)

Solid Oxide Fuel Cells - A Clean and Efficient Energy Technology for the Future

09:50 to 10:10

Aziz Nechache (Division of Physical Sciences and Engineering, King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia), Samir Boulfrad, Mark Cassidy, Enrico Traversa, John T.S. Irvine

Study of LSCM-CGO-Ni Anode Characteristics by Electrochemical Impedance Spectroscopy

10:10 to 10:30

Anne Hauch (Department of Energy Conversion and Storage, Technical University of Denmark, Roskilde, Denmark), Karen Brodersen, Peter Stanley Jørgensen, Ming Chen

Ni/YSZ Electrodes Optimized for Stability at High Electrolysis Current Density

10:30 to 10:50

Sergey Rashkeev (Theory, Modeling & Simulation, Qatar Environment & Energy Research Institute, Doha, Qatar), Michael Glazoff, Stephen Herring

Towards Control of Major Degradation Processes in Solid Oxide Electrolysis Cells

10:50 to 11:10

Coffee Break

11:10 to 11:30

Lucia Fernandez Macia (Electrochemical and Surface Engineering group, Vrije Universiteit Brussel, Brussels, Belgium), Dries Van Laethem, Sigelinde Steenberge, Diederik Depla, Johan Deconinck, Annick Hubin

Advanced EIS Study of the Ionic Conduction in Nanocrystalline Yttrium-Doped Ceria

11:30 to 11:50

Junfu Bu (Department of Materials Science and Engineering, KTH Royal Institute of Technology, Stockholm, Sweden), Pär Jönsson, Zhe Zhao

$BaZr_xCe_{0.8-x}Y_{0.2}O_{3-\delta}$ (x = 0.5, 0.6, 0.7) Proton Conductors Prepared by Spark Plasma Sintering

FRIDAY AM

Symposium 7: Electrodeposition - The Frontier Approach in Material Science and Nanofabrication

Room : 101C

Chaired by: Nikolay Dimitrov and Andrew Gewirth

09:30 to 09:50 Invited

Shuehlin Yau (Chemistry, National Central University, Jhongli, Taiwan)

In situ Scanning Tunneling Microscopy Imaging Self-Assembled Monolayers of Mercaptoacetic Acid and Cupric Ion on Au(111) Electrode

09:50 to 10:10

Andrew Lodge (Department of Chemistry, University of Southampton, Southampton, United Kingdom), Calum Robertson, Andrew Hector

The Synthesis and Characterisation of Mesoporous Silica Films for use in Supercritical Fluid Electrodeposition

10:10 to 10:30
W. Schwarzacher (Physics, University of Bristol, Bristol, United Kingdom), R. J. Brooke, Chengjun Jin, D. S. Szumski, R. J. Nichols, Bingwei Mao, K. S. Thygesen
A Ni - 4,4'-bipyridine - Ni single-molecule electrochemical transistor

10:30 to 10:50
Marco Musiani (IENI, CNR, Padova, Italy), Sandro Cattarin, Nicola Comisso, Paolo Guerriero, Luca Mattarozzi, Enrico Verlato
Oxygen Bubble Templated Anodic Deposition of Porous PbO_2

10:50 to 11:10
Coffee Break

11:10 to 11:30
Damian Kowalski (Laboratoire de Recherche en Nanosciences, University of Reims Champagne-Ardenne, Reims, France)
TiO_2 Nanotubes with Wide Spacing – a Platform for Electrodeposited Nanostructures

11:30 to 11:50
Jianming Li (Research Institute of Petroleum Exploration & De, PetroChina, Beijing, China), Jin Xu, Xiaoqi Wang, Liang Sun, Songtao Wu
Characterization of the microstructure of reservoirs using electrodeposition method

11:50 to 12:10
Honorata Kazimierczak (Institute of Metallurgy and Materials Science, Polish Academy of Sciences, Krakow, Poland), Agnieszka Hara, Piotr Ozga
Electrodeposition of Zn-Mn-Mo layers from citrate solutions

12:10 to 12:30
Derck Schlettwein (Institute of Applied Physics, Justus-Liebig-University Giessen, Giessen, Germany), Martina Stumpp, Thi Hai Quyen Nguyen, Christian Lupo
Interplay of Different Reaction Pathways in the Pulsed Galvanostatic Deposition of ZnO

Symposium 9: Electrocatalytic Materials

Room : 101A

Chaired by: Lindsay Wilson and Dejin Zang

09:30 to 09:50
Chuan Zhao (School of Chemistry, The University of New South Wales, Sydney, Australia), Xunyu Lu, Changlong Xiao
Three Dimensional Precious Metal Free Electrocatalysts for Water Splitting

09:50 to 10:10
Dejin Zang (Chemistry, University of Strasbourg, Institute of Chemistry, Strasbourg, France), Antoine Bonnefont, Laurent Ruhlmann
Porphyrin-Polyoxometalates@Pt Modified Electrodes for Electrocatalytic Hydrogen Evolution Reaction

10:10 to 10:30
Wei-Fu Chen (Chemistry Department, Brookhaven National Laboratory, Upton, USA), Kotaro Sasaki, Jonathan Schneider, Chiu-Hui Wang, James Muckerman, Etsuko Fujita
Nitride-Stabilized Tungsten Carbide Electrocatalysts for Hydrogen Evolution Reaction

10:30 to 10:50
Zhaoxiong Xie (Department of Chemistry, Xiamen University, Xiamen, China), Qiaoli Chen, Haixin Lin, Yanyan Jia, Zhenming Cao, Yaqi Jiang, Lansun Zheng
Suppersaturation Dependent Evolution of Nanocrystal Surfaces and its Application in the Synthesis of Noble Metal Nanocatalysts with Enhanced Electrocatalytic Properties

10:50 to 11:10 Coffee Break

11:10 to 11:30

Lindsay Wilson (Chemistry, University of the Western Cape, Cape Town, South Africa), Candice Rassie, Priscilla Baker, Emmanuel Iwuoha

Electrochemical Responses of Transglutaminase Immunosensor Developed on a Polypyrrole-Cobalt (II) Salicyladiimine Dendritic Composite Material

11:30 to 11:50

Erika Bustos (Science, Centro de Investigación y Desarrollo Tecnológico en Electroq, Querétaro, Mexico), Rosa Herrada, Oswaldo Cuevas, Federico Manríquez, Alejandro Medel, Igancio Sirés

Electrocatalytic Effect of IrO_2-Ta_2O_5/Ti in the Electrochemical Degradation of Phenanthrene, Naphthalene and Fluoranthene in Wastewater from the Electrokinetic Treatment of Polluted Soil by Hydrocarbons

11:50 to 12:10

Xue Leng (School of Chemistry and Molecular Biosciences, the University of Queensland, Brisbane, Australia)

Reduction Induced Surface Amorphization Enhances Oxygen Evolution Reaction Activity in Co_3O_4

12:10 to 12:30

Chen-Hao Wang (Department of Materials Science and Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Vuri Ayu Setyowati, Hsin-Chih Huang

Effect of Iron Precursor on Oxygen Reduction Reaction of Fe-N-C Catalyst in PEMFC

Symposium 9: Electrocatalytic Materials

Room : 201EF

Chaired by: Christian Engelbrekt and Petr Krtil

09:30 to 09:50

Chia-Ying Chiang (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Po-Tso Ting

Multi-Components Amorphous Metal-Oxides Catalysts for Oxygen Evolution Reaction

09:50 to 10:10

Cheng-Lan Lin (Department of Chemical and Materials Engineering, Tamkang University, New Taipei City, Taiwan), Ju-Yu Yeh

Preparation and Characterization of Platinum Nanoparticles Supported on Silica-Carbon Black Nanocomposites for Methanol Oxidation Reaction

10:10 to 10:30

Petr Krtil (Electrocatalysis, J. Heyrovsky Institute of Physical Chemistry, Prague, Czech Republic), Tatsuya Hiratoko, Hana Hoffmannova, Jonathan Mueller, Timo Jacob

Dynamics of Pt/Ru Based Alloy Catalysts in Formate Oxidation Process – a DFT and In-Situ XAS Approach

10:30 to 10:50

Daniel Guay (Énergie, Matériaux, Télécommunications, INRS, Varennes, Canada), Claudie Roy, Sébastien Garbarino, Ifan Stephens, Ib Chorkendorff

Electroreduction of CO on mesoporous Cu and oxide-derived mesoporous Cu electrodes

10:50 to 11:10

Coffee Break

11:10 to 11:30

Wen-Bin Cai (Department of Chemistry, Fudan University, Shanghai, China), Kun Jiang, Ye Wang

Bridging across Electrocatalytic Performances of Nanomaterials & Interfacial Species Evolution with Realtime ATR-IR Spectroscopy

11:30 to 11:50
Christian Engelbrekt (Department of Chemistry, Technical University of Denmark, Lyngby, Denmark), Nedjeljko Seselj, Jens Ulstrup, Jingdong Zhang
Facile synthesis of starch-scaffolded bimetallic Au-Pt nanostructure and electrocatalysis

11:50 to 12:10
Kobra Ghobadi (Chemistry, Yazd University, Yazd, Iran (Islamic Republic of)), Hamid Reza Zare, Hossein Khoshro, Alireza Gorji, Abbas Ali Jafari
A Study of the Catalytic Activity of a Schiff Base Ligand on Electrochemical Reduction of Carbon Dioxide: Indirect Electrocatalytic Synthesis of Isonicotinic Acid

Symposium 11: New Important Frontiers in Molecular Electrochemistry

Room : 201D

Chaired by: Olivier Buriez, Kazuhiro Chiba, Flavio Mara and Jean-Michel Saveant

09:30 to 09:50
Wenjing Hong (Department of Chemistry and Biochemistry, University of Bern, Bern, Switzerland), Masoud Baghernejad, Cancan Huang, Thomas Wandlowski
Break Junction under Electrochemical Gating: Fermi-level Tuning and Redox Manipulation

09:50 to 10:10
Toshio Fuchigami (Department of Electronic Chemistry, Tokyo Institute of Technology, Yokohama, Japan), Shinsuke Inagi
Selective Electrochemical Fluorination of Organic Molecules and Macromolecules Using Poly(HF) Salt Ionic Liquids

10:10 to 10:50 Keynote
Jean-Michel Saveant (Chemistry, Université Paris Diderot (Paris 7), Paris 13, France)
Current Issues in Molecular Catalysis Illustrated by Iron Porphyrins as Catalysts of the CO_2-to-CO Electrochemical Conversion

10:50 to 11:10 Coffee Break

11:10 to 11:30
Joanne Tory (Chemistry, University of Reading, Reading, United Kingdom), František Hartl
Transition Metal α-Diimine Carbonyl Complexes for Electrocatalytic CO_2 Reduction

11:30 to 11:50
Xinsheng Zhang (Department of Chemical Reaction Engineering, East China University of Science and Technology, Shanghai, China), Ling Jin, Dongfang Niu
Action Mechanism of Quaternary Ammonium Compound in the Electroreduction of Oxalic Acid to Glyoxylic Acid

11:50 to 12:10
Hiroyuki Ueda (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Katsuhiko Nishiyama, Soichiro Yoshimoto
Influence of Cations on the Control of the Multiple Redox States of Fullerene at the Ionic Liquid Electrochemical Interface

Symposium 14: Modeling, Design and Characterization of Nanostructured, Electroactive and Multifunctional Materials

Room : 101D

Chaired by: Masa-aki Haga and Alessandro Minguzzi

09:30 to 09:50 Invited

Enrico Verlato (IENI-CNR, CNR, Padova, Italy), Simona Barison, Wenyan He, Didier Floner, Florence Fourcade, Abdeltif Amrane, Florence Geneste, Marco Musiani

Deposition of Ag Nanostructures on Ni-based 3D Electrodes and their Application as Electrocatalysts

09:50 to 10:10

Guobao Xu (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of, Changchun, China), Jianping Lai, Wenxin Niu, Ling Zhang

Shape-Controlled and Size-Controlled Synthesis of Metal Nanocrystals and Their Electrochemical Applications

10:10 to 10:30

Kenta Imai (Department of Chemistry, University of Bologna, Bologna, Italy), Giovanni Valenti, Elena Villani, Massimo Marcaccio, Luca Prodi, Francesco Paolucci

Effect of Electrode Surface-State Change on Electrogenerated Chemiluminescence from a Ruthenium-Doped Silica Nanoparticle

10:30 to 10:50

Joanna Dolinska (Department of Electrode Processes, Insitute of Physical Chemistry Polish Academy of Sciences, Warsaw, Poland), Arunraj Chidambaram, Zahra Taleat, Witold Adamkiewicz, Wojciech Lisowski, Michalina Iwan, Barbara Palys, Volodymyr Sashuk, Tomasz Andryszewski, Marcin Opallo, Liza Rassaei

Electrocatalytic Oxidation of Biologically Active Compoundson MoS_2 Nanopetal Stacks Decorated with Carbon or Gold Nanoparticles

10:50 to 11:10

Coffee Break

11:10 to 11:50 Keynote

Gyeong S. Hwang (McKetta Department of Chemical Engineering, University of Texas at Austin, Austin, USA)

Understanding and Predicting the Photocatalytic Properties of Bismuth Vanadate from First Principles

11:50 to 12:10

Herenilton Oliveira (Chemistry, Universidade de São Paulo, Ribeirão Preto, Brazil), Jane Machado

Preparation, Characterization, and Electrochemical Properties of Monolith Glass-like Carbon-Silica Composites

Symposium 18: General Session

Room : 101B

Chaired by: Micheal Scanlon and Neeraj Sharma

09:30 to 10:10 Keynote

Aicheng Chen (Department of Chemistry, Lakehead University, Thunder Bay, Canada)

Palladium-Based Nanomaterials: Synthesis and Electrochemical Applications

10:10 to 10:30

Andrei Ionut Mardare (Institut for Chemical Technology of Inorganic Materials, Johannes Kepler University Linz, Linz, Austria), Christian Siket, Cezarina Cela Mardare, Siegfried Bauer, Achim Walter Hassel

Dynamics of Interfacial Oxide Formation during Anodization of Valve Metal Superimposed Ultra-Thin Films

10:30 to 10:50

Micheal Scanlon (Department of Chemistry & Tyndall National Institute, University College Cork, Cork, Ireland), Andres Molina Osorio

Functionalization of Conductive Carbon Supports at Water/Oil Interfaces with Non-Precious Metal Hydrogen Evolution Catalysts

10:50 to 11:10

Coffee Break

11:10 to 11:30

Sung-Wook Kim (Nuclear Fuel Cycle Process Development Group, Korea Atomic Energy Research Institute, Daejeon, Korea), Eun-Young Choi, Wooshin Park, Hun Suk Im, Jin-Mok Hur

Conductive Ceramics as O_2-Evolving Anodes for Electrolytic Reduction of Metal Oxides

Poster presentation program

Symposium 1: New Directions in Analytical Electrochemistry

Analytes

s01-001

Shu-Hua Cheng (Department of Applied Chemistry, National Chi Nan University, Nantou Hsien, Taiwan), Yen-Hua Liao, Ya-Ling Su

Electrochemical Determination of Bisphenol A at Conducting Poly(diallyldimethylammonium chloride) Film-Modified Preanodized Screen-Printed Carbon Electrodes

s01-002

Xiaorong Gan (School of Environmental Science and Technology, Dalian University of Technology, Dalian, China)

Highly Sensitive Electrochemical Sensor for Cu (II) Ions Based on Three-dimensional Porous H_xTiS_2 Nanosheet-polyaniline

s01-003

Huangxian Ju (State Key Laboratory of Analytical Chemistry for Life Science, Nanjing University, Nanjing, China)

Amplified Electrochemical Analysis of DNA and Proteins

s01-004

Akira Kotani (School of Pharmacy, Tokyo University of Pharmacy and Life Sciences, Tokyo, Japan), Mizuki Watanabe, Kazuhiro Yamamoto, Fumiyo Kusu, Hideki Hakamata

High-performance Liquid Chromatography with Electrochemical Detection for Determining a Ratio of Eicosapentaenoic Acid to Arachidonic Acid in Human Plasma

s01-005

Si-Ping Wang (Chang Gung University, Taoyuan, Taiwan), Trav Huang, Andrew S. Lin

Study of the Electrochemical Oxidation of Dissolved Carbon Monoxide in Acidic and Alkaline Electrolytes by Using and Fabricated Au-Microelectrode

Data analysis

s01-006

RyeoYun Hwang (Graduate School of Analytical Science & Technology, Chungnam National University, Daejeon, Korea), Oc Hee Han, Young-Seok Byun

Multiple On-line NMR System Development to Detect Electrochemical Reactions of Direct Alcohol Fuel Cells

s01-007

Jan Vacek (Department of Medical Chemistry and Biochemistry, Palacky University, Olomouc, Czech Republic), Jan Hrbac, Vladimir Halouzka, Libuse Trnkova

eL-Chem Viewer: A Freeware Package for the Analysis of Electrochemical Data

Electrodes

s01-008

Fethi Bedioui (CNRS UTCBS 8258-Chimie ParisTech, Chimie ParisTech, Paris, France), Amandine Calmet, Sophie Griveau, Virginie Lair, Michel Cassir, Abdelilah Amar, Eliane Sutter, Philippe Brunswick

Corrosion behavior of biocompatible stainless steels in physiological medium for application to non-invasive diagnosis of small fiber neuropathies

s01-009

Jan Clausmeyer (Analytische Chemie, Center for Electrochemical Sciences, Ruhr-Universität Bochum, Bochum, Germany), Justus Masa, Edgar Ventosa, Wolfgang Schuhmann

Investigation of Single Ni(OH)2 Nanoparticles: Electrocatalysis and Energy Storage at Ultrafast Mass Transport

s01-010

Yingchun Li (Pharmacy, School of Pharmacy, Shihezi University, Shihezi, China), Jie Liu, Han Song, Jiang Liu, Lu Zhang

Ultrasensitive electrochemical sensing of metronidazole using molecularly imprinted polymer decorated hollow nickel nanospheres on carbon nanotubes

s01-011

Huei-Ping Liou (Chemical and Materials Engineering, Chang Gung University, Tao-Yuan, Taiwan), Chia-Liang Sun

Microwave-Assisted Synthesis of Graphene Oxide Nanoribbons Using Green Chemistry for the Electrochemical Detection

s01-012

Yanyan Song (Research Center for Analytical Sciences, College of Sciences, Northeastern University, Yanyan Song, China), Tongtong Li

Cocoon Silk-Derived Carbon Nanospheres: Highly Activated Metal-Free Electrocatalysts for Reduction of Dissolved Oxygen and Glucose Sensing

s01-013

Chia-Liang Sun (Dept. of Chem. and Mater. Eng., Chang Gung University, Tao-Yuan, Taiwan), Chun-Hao Su, Jhing-Jhou Wu, Chen-Fu Pan

Synthesis of Short or Holey Graphene Oxide Nanoribbons for the Electrochemical Detection of Biomarkers

s01-014

Takami Tsukuma (Dept of Science of Environment and Mathematical Modeling, Doshisha University, Kyotanabe, Japan), Masatsugu Morimitsu

A Novel Electrochemical Sensing of Hydrogen Phosphate Ion with RuO_2-Ta_2O_5 Mixed Oxide

s01-015

Giovanni Valenti (Chemistry G. Ciamician, University of Bologna, Bologna, Italy), Martina Zangheri, Sandra Sansaloni, Mara Mirasoli, Alain Penicaud, Aldo Roda, Francesco Paolucci

Transparent Carbon Nanotube Network for Efficient Electrochemiluminescence Device

s01-016

Guor-Tzo Wei (Chemistry and Biochemistry, National Chung Cheng Unversity, Chiayi, Taiwan)

The Modification of Screen-printed Carbon Electrodes with Polymerized Ionic Liquid Composites for Chemical Analysis

s01-017

Yavuz Yardým (Analytical Chemistry, Yüzüncü Yýl University, Faculty of Pharmacy, Van, Turkey), Metin Celebi, Abdulkadir Levent, Zühre Sentürk, Aydin Yigit

Using Graphene-Nafion Composite Film Modified Glassy Carbon Electrode for the Simultaneous Determination of Paracetamol, Aspirin and Caffeine in Pharmaceutical Formulations

s01-018

Mingzhong Zou (Condensed Matter Physics, Fujian Normal University, Fuzhou, China), Wenyu Yang, Xiang Chen, Guiying Zhao, Jiaxin Li, Yingbin Lin, Zhigao Huang

Suppression of degradation of lithium ion batteries for $LiFePO_4$@C batteries by nano Si surface modification

Techniques

s01-019

Gan-Zuei Chang (Department of Chemistry, University of Oxford, Oxford, United Kingdom), Robert Jacobs, Kylie Vincent

In situ ATR-IR spectroelectrochemical study of the deactivation of Pd/C catalysts used in DFAFC by common impurities found in formic acid

s01-020

Guy Denuault (Chemistry, University of Southampton, Southampton, United Kingdom), Ana Cristina Perdomo Marin

An *in-situ* Microelectrode Study of the Sea Surface Microlayer: Experimental and Theoretical Challenges

s01-021

Ertugrul Keskin (Analytical Chemistry, Adiyaman University, Faculty of Pharmacy, Adiyaman, Turkey), Yavuz Yardim, Abdulkadir Levent, Zuhre Senturk

Electrochemical determination of Norepinephrine by adsorptive stripping voltammetry using a boron doped diamond electrode

s01-022

Genxi Li (Department of Biochemistry, Nanjing University, Nanjing, China), Hao Li, Yue Huang, Luming Wei, Weiwei Li, Xiaoli Zhu

Fabrication of Electrochemical Biosensor by Using Peptide as a New Kind of Recognition Element

s01-023

Samuel Perry (Chemistry, University of Southampton, Southampton, United Kingdom), Guy Denuault

Normalised Sampled-Current Voltammetry at Microdisc Electrodes: Kinetic Information from Pseudo Steady State to Steady State Voltammetry

s01-024

Yukihiro Shintani (School of Science and Engineering, Tokyo, Japan)

Characterization of Polycrystalline Doped-diamond Electrolyte-solution-gate Field-effect Transistor pH Sensor with/without Termination Control

s01-025

Simon Theil (ZSW - Ulm, Zentrum für Sonnenenergie und Wasserstoffforschung, Ulm, Germany), Margret Wohlfahrt-Mehrens

Investigation of cell aging by analysis of electrolyte decomposition *via* gas chromatography

s01-026

Her Shuang Toh (Department of Chemisty, Oxford University, Oxford, United Kingdom), Richard Compton

'Nano-impacts': An Electrochemical Technique for Nanoparticle Sizing in Optically Opaque Solutions

s01-027

Yavuz Yardým (Analytical Chemistry, Yüzüncü Yýl University, Faculty of Pharmacy, Van, Turkey)

Square-Wave Adsorptive Stripping Voltammetric Determination of Resveratrol Using Boron-Doped Diamond Electrode in the Presence of Hexadecyl Trimethyl Ammonium Bromide

s01-028

Chuan Zhao (School of Chemistry, The University of New South Wales, Sydney, Australia), Asim Khan

Oxygen Reduction Reactions in Ionic Liquids-Based Mixture Electrolytes for High Performance Rechargeable Li-O_2 Batteries

s01-029

Javier Izquierdo Pérez (Institute of Analytical and Bioanalytical Chemistry, University of Ulm, Ulm, Germany), B. Mizaikoff, C. Kranz

An Analytical Platform for the Characterization of Electrochemical Processes at AuNPs-Modified BDD Electrodes

s01-030

Omotayo Arotiba (Applied Chemistry, University of Johannesburg, Johannesburg, South Africa) Olayiwola Idris, Nonhlangabezo Mabuba

Dealing with Interferences in the Electrochemical Detection of Arsenic – a Complexometric Masking Approach

Symposium 2: Electrochemical Aspects of Biological Systems: Theory, Experiment and Applications

Bio-device

s02-001

Stefania Rapino (Chemistry Department G. Ciamician, University of Bologna, Bologna, Italy), Mirella Trinei, Matteo Iurlo, Eleonora Ussano, Alice Soldà, Giovanni Valenti, Pier-Giuseppe Pelicci, Francesco Paolucci, Massimo Marcaccio, Marco Giorgio

Development of an Electrochemically Based Rapid, Low-cost and Spreadable Assay for Heart Injury and Cancer Related Pathologies

s02-002

Mistuo Sano (Precision and Intelligence Laboratory, Tokyo Institute of Technology, Yokohama, Japan), Yuma Tahara, Chun-Yi Chen, Tomoko Hashimoto, Hiromichi Kurosu, Masato Sone

Pd Catalyzation and Electroless Deposition of Ni on Textile Using Supercritical Carbon Dioxide

Biochip

s02-003

Ausra Baradoke (Department of Nanoengineering, Center for Physical Sciences and Technology, Vilnius, Lithuania), Aneta Radzevic, Raimonda Celiesiute, Ramunas Valiokas, Rasa Pauliukaite

Graphene Electrodes for Electrochemical Detection of Biomarkers

Bioelectrocatalysis

s02-004

Sofiene Abdellaoui (Chemistry, University of Utah, Salt Lake City, USA)

New enzymes for the hybrid enzymatic and organic electrocatalytic cascade for the complete oxidation of glycerol

s02-005

Fred Lisdat (Biosystems Technology, Institute of Applied Life Sciences, Technical University Wildau, Wildau, Germany), J. Gladisch, D. Sarauli, B. Schulz

Electrospun, conductive polymer fleeces as electrode materials for enhanced bioelectrocatalysis

Biofuel

s02-006

Adalgisa De Andrade (Chemistry, FFCLRP/USP, Universidade de São Paulo, Ribeirao Preto, Brazil), Sidney Aquino-Neto, Ana L. R. L. Zimbardi, Franciane P. Cardoso, Lais B. Crepaldi, Rosa R.P.M. Furriel

Biocathodes Using a Laccase from *Pycnoporus sanguineus* and their Potential Application in Methanol/O_2 Biofuel Cell

s02-007

Isao Shitanda (Department of Pure and Applied Chemistry, Tokyo University of Science, Chiba, Japan), Saki Nohara, Seiya Tsujimura, Yoshinao Hoshi, Masayuki Itagaki

Fabrication of Paper-based Disk-shaped Glucose Biofuel Array

Biointerface

s02-008

Eun Joong Kim (Department of Chemistry, Seoul National University, Seoul, Korea), Taek Dong Chung

Fabrication of Artificial Synaptic Interfaces Using Engineered Synaptic Adhesion Proteins

s02-009

Alexander Vaskevich (Materials and Interfaces, Weizmann Institute of Science, Rehovot, Israel), Tatyana B. Bendikov, Ortal Bachar, Frolov Ludmila, Israel Rubinstein

Effect of Nanoscale Surface Morphology on Biorecognition Using Localized Surface Plasmon Resonance (LSPR) Spectroscopy

Biosensor

s02-010

Jingyi Chen (College of Chemistry and Chemical Engineering, Jiangxi Normal University, Nanchang, China)

An Ultrasensitive pH-Switchable Electrochemical Immunosensing based on Integrated 3D-KSCs Electrode as Singal Collector and AuNPs-Ab_2-GOD-ConA as Tracing Tag for Assay of CEA

s02-011

Shengyuan Deng (School of Environmental and Biological Engineering, Nanjing University of Science and Technology, Nanjing, China)

Label-Free Biomimetic Electrocatalysis-Induced Precipitation for Ultrasensitive Bioanalysis

s02-012

Juan He (College of Chemistry and Chemical Engineering, Jiangxi Normal University, Nanchang, China), Li Wang

The GOD/Cu-Hemin Metal Organic Frameworks Nanocomposites for Glucose Sensing

s02-013

Bang-De Hong (Department of Chemical and Materials Engineering, National Kaohsiung University of Applied Sciences, Kaohsiung City, Taiwan), Chien-Liang Lee

Defective graphene flake-supported Pd nanocubes as electrochemical glucose sensor

s02-014

Shih-Han Huang (Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei, Taiwan), Fu-Ming Wang

Ultra-sensitive electrochemical electrode developed for ovarian cancer

s02-015

Yuki Igaki (Graduate School of Material Science, Univercity of Hyogo, Ako, Japan), Fumio Mizutani, Tomoyuki Yasukawa

Measurement of oxygen consumption of contracting C_2C_{12} myotube using scanning electrochemical microscopy

s02-016

Bohdan Josypcuk (Biomimetic Electrochemistry, J. Heyrovsky Institute of Physical Chemistry, Prague, Czech Republic), Oksana Josypcuk

Biosensors with Electrochemical Detection at High Negative Potentials in Flow Systems

s02-017

Yingchun Li (Pharmacy, School of Pharmacy, Shihezi University, Shihezi, China), Han Song, Jie Liu, Lu Zhang, Jiang Liu, Yuan Liu

Ultrasensitive and selective electrochemical sensor for dopamine determination based on novel supportless nanoporous Au-Ag alloy microrod

s02-018

Ya-Yi Liang (Department of Chemical and Materials Engineering, National Chin-Yi University of Technology, Taichung, Taiwan), Yung-Chien Luo, Jing-Shan Do

Preparation and characterization of amperometric monoenzyme creatinine biosensor based on creatinine deiminase/PANI-PSSMA/Au/Al_2O_3 electrode

s02-019

Ming Jie Lin (Department of Bio-industrial Mechatronics Engineering, National Chung Hsing University, Taichung, Taiwan), Ching Chou Wu

Effect of the ratio of poly-L-lysine/glucose oxidase/ferricyanide composite on the sensing properties of second generation blood glucose sensors

s02-020

Yang Liu (Department of Chemsitry, Tsinghua University, Beijing, China)

Electrodeposited NiCo bimetallic nanoparticles decorated reduced graphene oxide for highly sensitive and selective determination of dopamine

s02-021

Aimi Suzuki (Materials Science, Faculty of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Japan), Kazuki Murata, Seiya Tsujimura

Characterization of Glucose Oxidase-Redox Hydrogel on MgO-templated Carbon Electrode

s02-022

Junko Tanaka (Research & Development Group, Hitachi, Ltd., Tokyo, Japan), Yu Ishige, Masao Kamahori

Direct detection for ratio of concentrations of HbA1c to total hemoglobin with potentiometric immunoassay

s02-023

Nozomu Tsuruoka (Division of Material Science, Pure and Applied Sciences, University of Tsukuba, Tsukuba, Japan), Kazuki Murata, Seiya Tsujimura

Glucose Biosensor based on a Glassy Carbon Electrode Modified with Poly(methylene green) and FAD-dependent Glucose Dehydrogenase

s02-024

Shih-Han Wang (Department of Chemical Engineering, I-Shou University, Kaohsiung City, Taiwan), Yi-Han Yen, Jing-Hwei Wang, Ming-Der Ger

Improvement of Electrochemical Biosensor Performance for Hydrogen Peroxide Sensing Based on Iridium Nanoparticles Modified Graphene Oxide

s02-025

Mikito Yasuzawa (Department of Chemical Science and Technology, Tokushima University, Tokushima, Japan), Jiang Li, Masahiro Uchimaru, Shunsuke Isoai, Yusuke Fuchiwaki

Fabrication of Low Invasisive Glucose Sensor for Continuous Glucose Monitoring

s02-026

Yongchun Zhu (Chemistry, Institute of Energy and Environment Catalysis, Shenyang Normal University, Shenyang, China), Jie Hao, Jianqiao Lang, Nan Xiao, Amin Bao

Amperometric bromide biosensor based on graphite powder composite electrode modified with leaf paste of natural amaranth induced by spaying KBr aqueous solution

Electron transfer

s02-027

Xiao-Yuan Liu (Department of Chemistry, East China University of Science and Technology, Shanghai, China)

Electrochemistry-controlled Photo-induced Electron Transfer in Ubiquinone-based Systems

s02-028

Galina Pankratova (Department of Biochemistry and Structural Biology, Lund University, Lund, Sweden), Kamrul Hasan, Donal Leech, Lars Hederstedt, Lo Gorton

Electrochemical Study of the Extracellular Electron Transfer of *Enterococcus faecalis* to Electrodes

s02-029

Rasa Pauliukaite (Department of Nanoengineering, Center for Physical Sciences and Technology, Vilnius, Lithuania), Raimonda Celiesiute, Aneta Radzevic, Tomas Rakickas, Zivile Ruzele, Sarunas Vaitekonis, Tautvydas Venckus

Application of Polyfolates to the Development of Enzymatic Biosensors

Membrane

s02-030

Osamu Shirai (Graduate School of Agriculture, Kyoto University, Kyoto, Japan), Yoshinari Takano, Yuki Kitazumi, Kenji Kano

Propagation of the change in the membrane potential -Electrochemical elucidation on nerve conduction-

Nanobiotechnology

s02-031

Ewelina Zabost (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Wioletta Liwiñska, Agnieszka Kowalczyk, Zbigniew Stojek

Multicomponent hydrogel/aptamer-based nanofibers and nanoparticles for storing and release of intercalators and genetic material

Nucleic acid

s02-032

Wioletta Liwińska (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Ewelina Zabost, Zbigniew Stojek

Nanoparticles designed from hydrogels and DNA in triple hybridisation process for improved storing and release of intercalators

Protein

s02-033

Shengyuan Deng (School of Environmental and Biological Engineering, Nanjing University of Science and Technology, Nanjing, China), Xubo Ji, Peng Xin, Dan Shan

An Electrogenerated Chemiluminescence Approach for the Assay of Zinc Finger Proteins (EGR1)

s02-034

Sin-Cih Sun (Department of Chemistry, Tunghai University, Taichung, Taiwan), Yuan-Hao Hsu, Min-Chieh Chuang

Interaction between Ferric/Ferrous Cytochrome c and Cardiolipin: An Electrochemical and Quartz Crystal Microbalance with Dissipation Study

Techniques

s02-035

Christian Andre Gunawan (School of Chemistry, The University of New South Wales, Sydney, Australia), Ekaterina Nam, Pall Thordarson, Chuan Zhao

Scanning Electrochemical Microscopy of Switchable Redox Enzyme Cascades

Symposium 3: Batteries for Tomorrow's World

Li-ion and beyond li-ion battery systems

s03-001

Iain Aldous (Stephenson Institute for Renewable Energy, University of Liverpool, Liverpool, United Kingdom), Laurence Hardwick

Adventures in Dioxygen Electrochemistry

s03-002

Hajime Arai (Kyoto University, Gokasho, Uji, Japan), Akiyoshi Nakata, Masaki Ono, Tadashi Kakeya, Tomokazu Yamane, Katsutoshi Fukuda, Hajime Tanida, Miwa Murakami, Yoshiharu Uchimoto, Zempachi Ogumi

Rechargeability of Zinc Electrodes Evaluated by *In Situ* Analysis

s03-003

Arenst Andreas Arie (Chemical Engineering, Parahyangan Catholic University, Bandung, Indonesia), Inez Devina, Ratna Frida Susanti, Hary Devianto, Martin Halim, Joong Kee Lee

Preparation and Electrochemical Performance of Turpentine Oil Derived Carbon Nanohorns as Anode Materials for Lithium-Ion Batteries

s03-004

Arenst Andreas Arie (Chemical Engineering, Parahyangan Catholic University, Bandung, Indonesia), Susan Olivia Limarta, Hans Kristianto, Martin Halim, Joong Kee Lee

Rice Husks Based Nanosilica as Anode Materials for Lithium-Ion Batteries

s03-005

Chika Baba (Dept of Sci of Environment and Mathematical Modeling, Doshisha University, Kyotanabe, Japan), Kenji Kawaguchi, Masatsugu Morimitsu

A High Energy Density of MH/Air Secondary Battery Using A_2B_7 Type of Hydrogen Storage Alloys

s03-006

Kolja Beltrop (MEET Battery Research Center, WWU, University of Münster, Münster, Germany), Paul Meister, Olga Fromm, Martin Winter, Tobias Placke

Electrochemical Intercalation of Anions into Graphite – The Role of Anion Structure and Solvent Properties

s03-007

Andrea Boschin (Applied Physics, Chalmers University of Technology, Gothenburg, Sweden), Patrik Johansson

Characterization of Sodium Based Ternary Polymer Electrolytes

s03-008

Daniel Brandell (Department of Chemistry, Uppsala University, Uppsala, Sweden), Bing Sun, Jonas Mindemark

A Renaissance for Solid Polymer Electrolyte through Alternative Host Materials: Polycarbonates

s03-009

Solveig Böhme (Chemistry, Ångström Uppsala University, Uppsala, Sweden), Kristina Edström, Leif Nyholm

Electrochemical behaviour of tin(IV) oxide electrodes in lithium-ion batteries at high potentials

s03-010

Fei-Fei Cao (College of Sciences, Huazhong Agricultural University, Wuhan, China)

Facile Synthesis of CuO Nanochains as Anode Materials for Lithium-Ion Batteries

s03-011

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Hwa Jin Lee (School of Chemical Engineering, University of Ulsan, Ulsan, Korea), Seul Lee, Eun-Suok Oh

Application of modified rosin-derivatives as promising adhesives for lithium titanium oxide electrodes in lithium ion batteries

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Tae-jin Lee (Department of Chemical and Biological Engineering, Seoul National University, Seoul, Korea), Taeho Yoon, Jiwon Jung, Jiyong Soon, Jae Gil Lee, Ji Heon Ryu

A comparative study on Li^+ ion migration characteristics in the interphases of positive and negative electrodes

s03-122

Jeong Beom Lee (Department of Chemical and Biological Engineering, Seoul National University, Seoul, Korea), Janghyuk Moon, Oh B. Chae, Ji Heon Ryu, Maenghyo Cho, Kyeongjae Cho, Seung M. Oh

Combined Theoretical *Ab-initio* and Experimental Study on $LiVO_3$, A Novel Conversion-type Negative Electrode for Lithium-ion Batteries

s03-123

Shih-kang Lin (Department of Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan), Ping-chun Tsai, Wen-Dung Hsu

Ab initio-aided $Li_4Ti_5O_{12}$ defect spinel electrode materials designs for durable lithium ion batteries

s03-124

Arailym Nurpeissova (Graduate School of Energy Science and Technology, Chungnam National University, Daejeon, Korea), Da-In Park, Sung-Soo Kim

SEI stabilizer agent epicyanohydrin for cathodes used in LIBs

s03-125

Sangki Park (Department of Chemical and Biomolecular Engineering, Yonsei University, Seoul, Korea), Hansung Kim

Polypyrrole as the Coating Agent and Nitrogen Precursor for the Fabrication of Nitrogen-Doped Graphite Felts as Positive Electrode for a Vanadium Redox Flow Battery

s03-126

Hao-Ting Peng (Chemical Engineering, Tatung University, Taipei, Taiwan), Cheng-Yao Lee, She-huang Wu, Jeng-Yu Lin

Effects of electrolyte additive on the electrochemical properties of lithium-ion batteries based on $Li_4Ti_5O_{12}$ anode materials

s03-127

Joaquin Rodriguez-Lopez (Department of Chemistry, University of Illinois at Urbana-Champaign, Urbana, USA), Elena Catalina Montoto Blanco, Jingshu Hui, Nagarjuna Gavvalapalli, Etienne Chenard, Kevin Cheng, Timothy Lichtenstein, Jeffrey Moore

Redox Active Polymers: Pursuing a Size-Selective Strategy for High Performance Non-Aqueous Redox Flow Batteries

s03-128

Hayate Saito (IMRAM, Tohoku University, Sendai, Japan), Daiki Komatsu, Takaaki Tomai, Itaru Honma

Capacity enhancement of semi-solid flow capacitor using quinonic compounds

s03-129

Sébastien Sallard (Electrochemistry Laboratory, Paul Scherrer Institut, Villigen-PSI, Switzerland), Sebastian Schmidt, Denis Sheptyakov, Petr Novak, Claire Villevieille

Lithium iron methylene diphosphonate, a new organic-inorganic hybrid material for Li-ion batteries.

s03-130

Selina Tillmann (MEET Battery Research Center, University of Muenster, Muenster, Germany), Martin Winter, Isidora Cekic-Laskovic

Electrodeposition of Silicon for the Preparation of Submicrostructured Electrodes

s03-131

Roberto Torresi (Instituto de Química, Universidade de São Paulo, São Paulo, Brazil), Vitor L. Martins, Nédher Sanchez-Ramirez, Mauro C. C. Ribeiro

Transport properties of Li^+ Mixtures in Two Phosphonium Containing Ionic Liquids

s03-132

Gang Wang (School of Chemistry and Chemical Engineering, Shihezi University, Shihezi City, China), Yongtao Zuo, Jun Peng, Gang Li, Feng Yu, Bin Dai, Xuhong Guo

Hybridization of graphene sheets and carbon-coated Fe_3O_4 hollow nanoparticles as a high-performance anode material for lithium-ion batteries

s03-133

Gang Wang (School of Chemistry and Chemical Engineering, Shihezi University, Shihezi City, China), Jun Peng, Yongtao Zuo, Gang Li, Feng Yu, Bin Dai, Xuhong Guo

In situ polyol-assisted synthesis of Zn_2SnO_4 nanocrystals/graphene nanohybrid as high-performance anode for Li-ion batteries

s03-134

Nan Hung Yeh (Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei , Taiwan), Lyu Ye Yang, Fu-Ming Wang

Next generation of Self Terminated Oligomer Branched Architecture (STOBA) in Li-rich ($Li_{1.2}Ni_{0.2}Mn_{0.6}O_2$) high capacity cathode material of lithium ion battery

s03-135

Aishui Yu (Chemistry Department, Fudan University, Shanghai, China)

Three-Dimensional Activated Porous Carbon /Sulfur Composites as Cathode Materials for Lithium-Sulfur Batteries

s03-136

Ludan Zhang (Chemistry, Fudan University, Shanghai, China)

Carbon-coated $Na_3V_2(PO_4)_3$ Nanocomposite as a Novel High Rate Cathode Material for Aqueous Sodium Ion Batteries

s03-137

Qianyu Zhang (Key Laboratory of Renewable Energy, Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences, Guangzhou, China), Chuying Ouyang, Lingzhi Zhang

W^{6+}&Br-codoped $Li_4Ti_5O_{12}$ Anodes with Super Rate Performance

s03-138

Wenli Zhang (College of Chemistry, Jilin University, Changchun, China), Jian Yin, Zheqi Lin, Haibo Lin, Haiyan Lu, Yue Wang, Jinpeng Bao, Tingting Liu

Mechanisms of Activated Carbon in Lead-Carbon Battery

s03-139

Haoxiang Zhong (Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences, Guangzhou, China), Lingzhi Zhang

Carboxymethyl Chitosan/Poly(ethylene oxide) as a Water Soluble Blend Binder for 5 V $LiNi_{0.5}Mn_{1.5}O_4$ Cathodes with Improved Cycle Stability in Li-Ion Batteries

s03-140

Dauren Batyrbekuly (Institute of Batteries, Institute of Batteries, Astana, Kazakhstan), Almagul Mentbayeva, Yongguang Zhang, Indira Kurmanbayeva, Kuralay Korzhynbayeva, Zhumabai Bakenov

Reinforced composite gel-polymer electrolytes for lithium-sulfur batteries

Symposium 4: Advances in Fuel Cells from Materials to Systems

Ageing and degradation

s04-001

Daniel Garcia (Electrochemical Energy Technology, Deutsches Zentrum für Luft- und Raumfahrt (DLR), Stuttgart, Germany)

Comparison of the Degradation process during the bus application loading cycling in PEMFC

s04-002

Misako Ikeyama (Graduate School of Engineering, Oita University, Oita, Japan), Taro Kinumoto, Sawaka Kitayama, Miki Matsuoka, Tomoki Tsumura, Masahiro Toyoda

IL-FE-SEM Study for Ambience Dependence of Degradation of Pt/C Catalyst

s04-003

Timothy J. Peckham (Department of Chemistry, Simon Fraser University, Burnaby, Canada), Lida Ghassemzadeh, Thomas Weissbach, Xiaoyan Luo, Steven Holdcroft

Structure and Property Changes of PFSA Ionomer Upon Exclusive Reaction with HO and H Radicals

s04-004

Miroslaw Stygar (Faculty of Materials Science and Ceramics, AGH University of Science and Technology, Krakow, Poland), Juliusz Dabrowa, Tomasz Brylewski

Oxidation kinetics and microstructure of oxide products formed on the Crofer 22APU ferritic stainless steel in a dual atmosphere

s04-005

Lung-Yu Sung (Energy storage Department, Industrial Technology Research Institute, Hsinchu, Taiwan)

Effects of H_3PO_4 leaching on the performance and degradation of high temperature-proton exchange membrane fuel cells

Direct alcohol fuel cells

s04-006

Patricia Corradini (Instituto de Química de São Carlos, Universidade de São Paulo, São Carlos, Brazil), Nathalia Santos, Valdecir Paganin, Ermete Antolini, Joelma Perez

Synthesis and characterization of electrocatalysts PtSnEu/C for anode in direct alcohol fuel cell

s04-007

Lin Gan (Division of Energy and Environment, Graduate school at Shenzhen, Tsinghua University, Shenzhen, China), Lingyi Peng, Hao Yang, Jia Li, Hongda Du

Role of Interfaces of Au@Pt Nanoparticles in the Electrocatalysis of Alcohol Oxidation

s04-008

Xuan Zhang (College of Chemistry, Chemical Engineering & Biotechnology, Donghua University, Shanghai, China), Jia-Wei Zhang, Bei Zhang

Improving the Electrocatalytic Activity of Binary Alloy CuxPdy for Methanol Oxidation Reaction by Tailoring Chemical Composition

Electrolysis

s04-009

Tae-Hyun Yang (Fuel Cell Research Center, Korea Institute of Energy Research, Daejeon, Korea), Young-Jun Sohn, Minjin Kim

Simulated Design of High-altitude Long-endurance Unmanned Aerial Vehicles using Regenerative Fuel Cell Systems

Fuel cell and electrolysis membranes and separators

s04-010

Min-Hsing Chang (Mechanical Engineering, Tatung University, Taipei, Taiwan), Sheng-Wei Huang

Fabrication of Anode Microporous Layer with Carbon Nanotubes and its Effect on Proton Exchange Membrane Fuel Cell Performance

s04-011

Ping-Yen Chen (Materials Science and Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan)

Novel Polybenzimidazoles Containing Bulky Side Groups for High-temperature Polymer Electrolyte Membranes Fuel Cell Applications

s04-012

Nick Daems (Centre for Surface Chemistry and Catalysis, K.U. Leuven, Heverlee, Belgium), Sam Milis, Paolo Pescarmona, Ivo Vankelecom

Synthesis of membrane electrode assemblies for proton-exchange membrane fuel cells

s04-013

Ronghuan He (Department of Chemistry, College of Sciences, Northeastern University, Shenyang, China), Yixin Xu, Jingshuai Yang

Cross-Linked Imidazolium-Based Anion Exchange Membranes

s04-014

Xiangnan He (Chemistry, Northeastern University, Shenyang, China)

Bi-imidazolium Cation Crosslinked Poly(2,6-dimethyl-1,4-phenylen oxide) Anion Exchange Membranes for Fuel Cell Application

s04-015

Wang Hsiang-Cheng (School of Defense Science, CCIT, National Defense University, Taoyuan, Taiwan), Ger Ming-Der, Lu Chen-En

Improvement on corrosion resistance and conductivity by electroplated coatings on aluminum 5052 bipolar plate of proton exchange membrane fuel cell

s04-016

Taro Kimura (Graduate School of Medicine and Engineering, University of Yamanashi, Kofu, Japan), Masanori Hara, Junji Inukai, Makoto Uchida, Manai Shimada, Hideaki Ono, Shigefumi Shimada, Kenji Miyatake, Masahiro Watanabe

Anion-conductive areas on anion exchange membranes analyzed by current-sensing atomic force microscopy under controlled conditions

s04-017

Dong-Hoon Lee (Green Materials Research Group, Youngin, Korea), Eun-Su Lee, Nayoung Kim, Moo-Seok Lee

Development of Nanofiber Reinforced PEM Impregnated with Hydrocarbon Polymer Electrolytes

s04-018

Hyejin Lee (Fuel Cell Laboratory, Korea Institute of Energy Research (KIER), Daejeon, Korea), Byungchan Bae

Proton Conducting Composite Membranes with Improved Oxidative Stability for PEMFC

s04-019

Sojeong Lee (Fuel Cell Laboratory, Daejeon, Korea), Byungchan Bae

Crosslink-free highly sulfonated multi-block poly(arylene ether sulfone) multi-block membranes for PEMFC

s04-020

Shih-Wei Lee (Materials Science and Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Jin-An Wu, Kuei-Hsien Chen

Novel Poly(ether sulfones) with Clustered Sulfonic Groups for PEMFC Applications at Various Relative Humidity

s04-021

Kwangjin Oh (Energy Systems Engineering, Daegu Gyeongbuk Institute of Science and Technology, Daegu, Korea)

Synthesis of sulfonated block copolymer for polymer electrolyte fuel cells operating at intermediate temperature

s04-022

Gyu-Hyeon Oh (Department of Environmental Engineering, Sangmyung University, Cheonan, Korea), Mun-Sik Shin, Moon-Sung Kang, Jin-Soo Park

Effects of Solvents for Dispersion Solutions on Membrane-Electrode Assembly for Proton Exchange Membrane Fuel Cells – Overvoltage and Durability

s04-023

Mun-Sik Shin (Department of Environmental Engineering, Sangmyung University, Cheonan, Korea), Jin-Soo Park

The Porous Polyimide Membranes Derived from Diamine Monomer Containing Benzimidazole Unit for High Temperature Fuel Cells

s04-024

Mun-Sik Shin (Department of Environmental Engineering, Sangmyung University, Cheonan, Korea), Moon-Sung Kang, Jin-Soo Park

Preparation and Characterization of Anion Conducting Ionomer Binder based on Quaternized Polybenzimidazole for Solid Alkaline Fuel Cells

Fuel cell electrocatalysis

s04-025

Koki Baba (Department of Biomolecular Functional Engineering, Ibaraki University, Ibaraki, Japan), Mika Shiraishi, Risa Shiraishi, Mikka Nishitani-Gamo, Toshihiro Ando, Mika Eguchi

Enhancement of polymer electrolyte fuel cell performance using a Marimo carbon

s04-026

Antoinette Boreave (Chemistry, CNRS, Villeurbanne, France), Foteini M. Sapountzi, Michail N. Tsampas, Chunhua Zhao, Laurence Retailleau, Dario Montinaro, Philippe Vernoux

Triode Operation for Enhancing the Performance of H_2S-Poisoned SOFCs for CH_4 Steam Reforming

s04-027

Kuo-Wei Chiang (Department of Chemical Engineering and Materials Science, Yuan Ze University, Taoyuan, Taiwan), Bo-Syun Cheng, Ken-Ming Yin

Mathematical Model of Non-Uniform Cathode Catalyst Layer on the Performance of PEMFC

s04-028

Xiaoqiang Cui (School of Materials Science and Engineering, Jilin University, Changchun, China)

Plasmonic Induced Inhibition and Enhancement of the Electrocatalytic Activity for Ethanol Oxidation on Pd/Au Hetero-Nanoraspberries

s04-029

He-yun Du (Center for Condensed Matter Sciences, National Taiwan University, Taipei, Taiwan), Li-Chyong Chen, Kuei-Hsien Chen, Chen-Hao Wang

Enhanced Proton Conductivity of Polybenzimidazole Membranes Synthesized *via* Direct-casting Process for High Temperature Fuel Cells

s04-030

Kazuma Furuhashi (Department of Biomolecular Functional Engineering, Ibaraki University, Hitachi, Japan), Mika Shiraishi, Risa Shiraishi, Mikka Nishitani-Gamo, Toshihiro Ando, Mika Eguchi

Electrochemical characterization of Marimo carbon supported Pt–Pd

s04-031

Daniel Garcia (Institut für Technische Thermodynamik, Deutsches Zentrum für Luft und Raumfahrt (DLR), Stuttgart, Germany), Beatriz Martinez, J.L Castillo, Kaspar Andreas Friedrich, P.L Garcia-Ybarra

Characterization of ultra-low loading MEAs fabricated by electrospray deposition

s04-032

Valentina Grippo (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Roland Ludwig, Renata Bilewicz

Comparison of fuel cells based on different cathode and anode enzymes

s04-033

Makoto Hamazaki (Green Hydrogen Research Center, Yokohama National University, Yokohama, Japan), Akimitsu Ishihara, Yuji Kohno, Koichi Matsuzawa, Shigenori Mitsushima, Kenichiro Ota

Evaluation of durability of titanium-niobium oxides mixed with Ti_4O_7 as non-precious metals and carbon-free cathodes for PEFC in sulfuric acid at 80°C

s04-034

Akari Hayashi (International Research Center for Hydrogen Energy, Kyushu Univsersity, Fukuoka, Japan), Yasuto Minamida, Zhiyun Noda, Kazunari Sasaki

Development of a cathode material for durable PEFC through the encapsulation of Pt into carbon mesopores

s04-035

Hsiao-Chun Huang (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Chun-Jern Pan, Wei-Nien Su, Bing-Joe Hwang

Conductive oxide supported Co_3O_4 nanocomposite as robust catalysts for oxygen reduction and evolution reaction

s04-036

Xuan Jian (College of Chemistry and Chemical Engineering, Taiyuan University of Technology, Taiyuan, China), Xian Liu, Huimin Yang, Zhenhai Liang

Graphene-Carbon Nanofibers Composite Film As a Highly Active Catalyst Support for Formic Acid Electrooxidation

s04-037

Nozomi Kawakami (Department of Chemical Engineering, National Institute of Technology, Nara College, Yamatokoriyama, Japan), Hirohisa Yamada, Takanori Kobayashi, Zyun Siroma, Katsumi Katakura, Minoru Inaba

Fundamental Studies on Oxygen Reduction Reaction and Hydrogen Peroxide Reduction Reaction with RRDE Technique

s04-038

Marika Muto (Graduate School of Environmental Science, Hokkaido University, Sapporo, Japan), Masaru Kato, Ichizo Yagi

Copper-Incorporated Carbon Catalysts for Oxygen Reduction Reaction

s04-039

Tsukasa Nagai (Research Institute of Electrochemical Energy, AIST, Osaka, Japan), Shin-ichi Yamazaki, Naoko Fujiwara, Masafumi Asahi, Zyun Siroma, Tsutomu Ioroi

Metalloporphyrin-Modified Perovskite-Type Oxide for Cathode Catalyst in Alkaline Fuel Cell

s04-040

Aziz Nechache (Division of Physical Sciences and Engineering, King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia), Samir Boulfrad, Shahid P. Shafi, Enrico Traversa

$La_{0.2}Sr_{0.25}Ca_{0.45}Ti_{1-x-y}Nb_xNi_yO_3$ as Potential Anode Material for IT-SOFCs

s04-041

Yao Nie (School of Chemistry and Chemical Engineering, Chongqing University, Chongqing, China), Siguo Chen, Wei Ding, Xiaohong Xie, Yun Zhang, Zidong Wei

Pt/C Trapped in Activated Graphitic Carbon Layers as a Highly Durable Electrocatalyst for Oxygen Reduction Reaction

s04-042

Kazuma Shinozaki (Chemistry, Colorado School of Mines, Golden, USA), Shyam Kocha

Rotating Disk Electrode Studies on the Effect of Nafion on the Oxygen Reduction Reaction for Pt/C and Pt Alloy/C

s04-043

Ryo Shirasaka (Chemical Engineering, Tokyo National College of Technology, Hachiouji, Japan), Sakumi Aoyagi, Hidenobu Shiroishi, Keiji Nagai, Hiraku Ota, Mikka Nishitani-Gamo

Effect of dispersion methods on oxygen reduction and ammonia oxidation activity for a MWCNT supported Pt catalyst

s04-044

Hidenobu Shiroishi (Chemical Science and Engineering, Tokyo National College of Technology, Hachiouji, Japan), Genki Horiguchi, Yu Chikaoka, Masato Uehara, Naoki Matsuda

Synthesis of Pt Nanoparticles using Microbubble-assisted Low-Voltage Low Frequency Solution Plasma Processing

s04-045

Yuko Tamura (Green Hydrogen Research Center, Yokohama National University, Yokohama, Japan), Akimitsu Ishihara, Yuji Kohno, Koichi Matsuzawa, Shigenori Mitsushima, Kenichiro Ota

Titanium-niobium oxides as non-platinum cathodes for polymer electrolyte fuel cells

Oxygen evolution/reduction reactions

s04-046

Wei Ding (School of Chemistry and Chemical Engineering, Chongqing University, Chongqing, China), Wei Li, Guangping Wu, Li Li, Siguo Chen, Xueqiang Qi, Zidong Wei

Shape Fixing *via* Salt Recrystallization: A Morphology-Controlled Approach to Convert Nanostructured Polymer to Carbon Nanomaterial as a High Active Catalyst for Oxygen Reduction Reaction

s04-047

Monika Góral-Kurbiel (Jerzy Haber Institute of Catalysis and Surface Chemistry PAS, Kraków, Poland), Alicja Drelinkiewicz, Robert Kosydar, Jacek Gurgul, Beata Dembińska, Pawel J. Kulesza, Elzbieta Bielańska, M. Ruggiero

The Effect of Nafion Ionomer on Electroactivity of Palladium-Polypyrrole Catalysts for Oxygen Reduction Reaction

s04-048

Tomoaki Hayashi (Green Hydrogen Research Center, Yokohama National University, Yokohama, Japan), Akimitsu Ishihara, Yuji Kohno, Koichi Matsuzawa, Shigenori Mitsushima, Kenichiro Ota

Kinetics of oxygen reduction reaction on titanium oxide-based catalysts prepared from oxy-titanium tetra-pyrazino-porphyrazine in acidic media

s04-049

Zi-Jun Lin (Institute of Materials Science and Engineering, National Central University, Taoyuan, Taiwan), Hong-Shou Chen, Yu-Ting Liang, Kuan-Wen Wang

The Effect of Heat-Treatment on the Oxygen Reduction Reaction Activity of Carbon-Supported PtCoAg Electrocatalysts

s04-050

Yuta Nabae (Department of Organic and Polymeric Materials, Tokyo Institute of Technology, Meguro-ku, Japan), Teruaki Hayakawa, Hideharu Niwa, Yoshihisa Harada, Masaharu Oshima, Atsushi Matsunaga, Ayano Isoda, Kazuhisa Tanaka

Synthesis and Characterization of Carbon-Based Non-Precious-Metal Cathode Catalysts from Polyimide Fine Particles

s04-051

Chen-Yu Tsai (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Yi-Chen Wu, Men-Che Tsai, Chun-Jern Pan

Preparation of Highly Conductive TiO_2 Supported Pt Catalyst and Its Electrochemical Performance

Physical electrochemistry

s04-052

Yongli Zheng (Hefei National Laboratory for Physical Sciences at Microscal, University of Science and Technology of China, Hefei, China), Yanxia Chen, Zhengda He, Jie Wei

The Degradation of Oxygen Reduction Activity at Stepped Platinum Surfaces in Acidic Media

s04-053

Yongli Zheng (Hefei National Laboratory for Physical Sciences at Microscal, University of Science and Technology of China, Hefei, China), Yao Yao, Dong Mei, Yanxia Chen

Oxygen reduction reaction on Au@Pt nanoparticles and Au(100) electrode

POSTERS

Solid oxide cells

s04-054

Junfu Bu (Department of Materials Science and Engineering, KTH Royal Institute of Technology, Stockholm, Sweden), Pär Jönsson, Zhe Zhao

The Effect of NiO on the Conductivities of $BaZr_xCe_{0.8-x}Y_{0.2}O_{3-\delta}$ (x = 0.5, 0.6, 0.7, 0.8) Proton Conductors

s04-055

Zhao Hui (Chemistry, Heilongjiang University, Harbin, China)

Electrochemical performance of double perovskite Pr_2NiMnO_6 as cathode for intermediate temperature solid oxide fuel cells

s04-056

I-Ming Hung (Department of Chemical Engineering and Materials Science, Yuan Ze University, Taoyuan, Taiwan), Hao-Ying Cheng, Sheng-Wei Lee, Jeng-Kuei Chang, Jing-Chie Lin, Jason Shian-Ching Jang, Chuan Li, Chi-Shiung Hsi

Synthesis and Characterization of High Temperature Proton Conductor $Sr(Ce_{0.6}Zr_{0.4})O_{3-\delta}$ co-doped with Indium and Yttrium

s04-057

Sou Ikeda (Department of Hydrogen Energy Systems, Kyushu University, Fukuoka, Japan), Shota Kotake, Hironori Nakajima, Tatsumi Kitahara

Mass Transfer Analysis of Anode-Supported Honeycomb Solid Oxide Fuel Cells

s04-058

Yuya Kitaguchi (Chemical Engineering, National Institute of Technology, Nara College, Yamatokoriyama, Japan), Hirohisa Yamada, Katsumi Katakura

Study on Ion conductivity of Mg-Al Layered Double Hydroxides prepared by electrochemical co-precipitation method

s04-059

Aditya Maheshwari (Institute of Inorganic Chemistry, University of Muenster, Muenster, Germany), Hans-Dieter Wiemhöfer

A Novel Approach to Develop MIEC material: CeO_2-ZrO_2 composite

s04-060

Chung-Ta Ni (Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan), Shu-Yi Tsai, Kuan-Zong Fung, Yu-Cheng Su, Han-Lung Liu

Structural Stability of Mixed Conducting $La_{0.8}Ca_{0.2}Fe_{1-X}Co_XO_3$(x=0~0.4) Perovskite in Different Atmospheres

s04-061

Chung-Ta Ni (Research Center for Energy Technology and Strategy, National Cheng Kung University, Tainan City, Taiwan), Shu-Yi Tsai, Kuan-Zong Fung, Hsin-Chia Ho

Effect of Thermal Effect on Phase Transformation of Plasma Sprayed Protective Oxides on SOFC Metallic Interconnects

s04-062

Masanori Ochi (Applied Physics, Tokyo University of Science, Tokyo, Japan), Shohei Yamaguchi, Takaaki Suetsugu, Naoya Suzuki, Kinya Kawamura, Takashi Tsuchiya, Masaki Kobayashi, Hiroshi Kumigashira, Tohru Higuchi

Structural and Electrical properties of Ru-doped $BaCe_{0.90}Y_{0.10}O_{3-\delta}$ Thin Film

s04-063

Miroslaw Stygar (Faculty of Materials Science and Ceramics, AGH University of Science and Technology, Krakow, Poland), Waldemar Tejchman, Juliusz Dabrowa, Tomasz Brylewski

Preparation and structural and electrical properties of calcium-doped and nickel-doped yttrium chromate(III)

s04-064

Shu-Yi Tsai (Research Center for Energy Technology and Strategy, National Cheng Kung University, Tainan City, Taiwan), Kuan-Zong Fung, Chung-Ta Ni, Yu-Fan Chang

Effect of Composite Cathode on Polarization Reduction for Solid Oxide Fuel Cells based on Microstructure and Ion-Conduction Consideration

Symposium 5: Novel Insights to Electrochemical Capacitors

EdI capacitor

s05-001

Mohammad BinSabt (Chemistry, Faculty of Science, Kuwait University, Kuwait, Kuwait), Ahmed Abdel Nazeer, Ahmed Galal

Effect of Nickel Oxide Type on the Electrochemical Behavior of Nickel-Graphene Oxide Hybrid – Towards Electrochemical Capacitor

s05-002

Hsiu-Chuan Chien (Chemical Engineering, National Tsing Hua University, Hsin-Chu City, Taiwan)

Buffer Effect on Electrolytes towards Supercapacitors Application

s05-003

Hui Dou (College of Material Science and Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China), Guiyin Xu, Qi Sheng, Bing Ding, Aixiu Wang, Zhi Chang

Porous Carbon Nanofiber with Phosphorus and Nitrogen Dual-Doping for High Performance Supercapacitors

s05-004

Hsin-Chieh Huang (Department of Chemical Engineering, National Cheng Kung University, Tainan, Taiwan), Hsisheng Teng

Facile Fabrication of High-Performance All-Solid-State Micro-supercapacitors through Laser Micromachining

s05-005

Pawel Jezowski (Institue of Chemistry and Technical Electrochemistry, Poznan University of Technology, Poznan, Poland), François Béguin

Activated carbon electrode expansion during EDL charging in various salt aqueous electrolytes

s05-006

Ick-Jun Kim (Battery Research Center, Korea Electrotechnology Research Institute, Changwon Si, Korea)

Effects of joule-heating on the activated carbon for improved electric double layer capacitor

s05-007

Chunling Liu (School of Chemistry and Chemical Engineering, Shaanxi Normal University, Xi'an, China), Yana Li, Li Wang, Fajun Xia, Tong Yang, Wensheng Dong

Ordered mesoporous carbon nitride as an electrode material for high performance electrochemical capacitors

s05-008

Jianyun Liu (Environmental Engineering, Donghua University, Shanghai, China), Miao Lu, Jianmao Yang, Jian Cheng, Wenshu Cai, Zhubiao Xiong

Asymmetric Capacitors to Improve the Charge Efficiency of the Capacitive Deionization

s05-009

Mahmoud Mohamed Mahmoud Ahmed (Graduate Institute of Applied Science and Technology, NTUST, Taipei, Taiwan), Toyoko Imae, Masaki Ujihara

Nondestructive production of magnetic graphene towards energy applications

s05-010

Sung June Park (Department of Energy Systems Research, Ajou University, Suwon, Korea), Jaeshin Yi, Kyung-Seok Min, Jongrak Choi, Ha-Young Lee

Thermal modeling of an ultracapacitor module for automotive applications

s05-011

Hsiao-Hsuan Shen (Chemical Engineering, Tsing Hua University, Hsin Chu, Taiwan)

Criteria of Activated Carbon Electrical Double-Layer Capacitors in Propylene Carbonate-Based Electrolyte

s05-012

Sheng Sian Yang (Chemical Engineering, National Taipei University of Technology, Taipei, Taiwan), Jun-Ming Chiu, Chao-Chi Tu, Lu-Yin Lin

The Simple Method for Synthesis of the Nickel Foam-supported graphene with High Surface Area for Supercapacitors

Electrolytes (organic, aqueous & IIs)

s05-013

Jaanus Eskusson (Faculty of Science and Technology, University of Tartu, Institute of Chemistry, Tartu, Estonia), Alar Jänes, Enn Lust

Influence of 1,2-Dimethoxyethane Additive on the Electrochemical Characteristics of EMImTFSI Based Electrolytes for Supercapacitors

s05-014

Paula Ratajczak (Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Poznan, Poland), Piotr Gajewski, François Béguin

Optimizing the high cell potential performance of AC/AC supercapacitors based on two aqueous electrolytes

s05-015

Paula Ratajczak (Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Poznan, Poland), Adam Slesinski, Elzbieta Frackowiak, François Béguin

Performance improvement of AC/AC capacitors in aqueous medium through selection of current collectors

s05-016

Tsukasa Ueda (Applied Chemistry, Tokyo University of Agriculture and Technology, Tokyo, Japan), Kenji Oshima, Natsuki Miyashita, Shinichi Seto, Etsuro Iwama, Wako Naoi, Katsuhiko Naoi

Li_4Ti5O_{12} / Activated Carbon Hybrid Capacitor for High Voltage Operation

s05-017

Cheng-Hsien Yang (Institute of Materials Science & Engineering, National Central University, Taoyuan, Taiwan), Po-Ling Huang, Xu-Feng Luo, Chueh-Han Wang, Chi Li, Yi-Hsuan Wu, Jeng-Kuei Chang

Holey Graphene Nanosheets with Surface Oxygen-containing Groups for High Supercapacitor Performance in Ionic Liquid Electrolyte

Pseudocapacitors & hybrids

s05-018

Arturas Adomkevicius (Department of Chemical Engineering, National Tsing Hua University/The University of Liverpool, Hsin-Chu city, Taiwan), Chi-Chang Hu, Laurence Hardwick

Synthesis and Characterisation of Sodium ion Pre-intercalated Manganese Oxide for High Performance Asymmetric Supercapacitors

s05-019

Esther Baek (Electronic Materials Engineering, Kwangwoon University, Seoul, Korea), Jeong Hyun Lee, Hong-Ki Kim

Superior power and energy density based on hybrid electrodes of Activated carbon-$H_2Ti_{12}O_{25}$ anode for hybrid supercapacitor

s05-020

Jun-Ming Chiu (Chemical Engineering, National Taipei University of Technology, Taipei, Taiwan)

Synthesis of Cobalt Sulfide Hydrangea Macrophylla Nanostructures with High Charge-Accumulation Surface Area for Supercapacitors

s05-021

Chaopeng Fu (Department of Materials, University of Oxford, Oxford, United Kingdom), Patrick Grant

Low-cost and high performance supercapacitors based on up-cycled industrial mill scale

s05-022

Qiu Jiang (Material Science and Engineering, KAUST, Thuwal, Saudi Arabia), Narendra Kurra, Husam Alshareef

A General Strategy for the Fabrication of High Performance Microsupercapacitors

s05-023

Lingbin Kong (School of Materials Science and Engineering, Lanzhou University of Technology, Lanzhou, China), Xuejing Ma, Weibin Zhang, Yongchun Luo, Long Kang

Nanocrystalline vanadium trioxide as negative electrodes for asymmetric supercapacitors

s05-024

Seung-Hwan Lee (Electronic Materials Engineering, Kwangwoon University, Seoul, Korea), Hyeong Jong Choi, Jin Hyeon Kim

Improved electrochemical performance of hybrid supercapacitor using highly dispersed Carbon-$AlPO_4$ binary coated $H_2Ti_{12}O_{25}$ as anode

s05-025

Yang Li (Materials Science, Shanghai Second Polytechnic University, Shanghai, China), Jing Li, Huaqing Xie

Hydrothermal prepared Al-doped α-MnO_2 nanotube and its electrochemical performances for supercapacitors

s05-026

Jeng-Yu Lin (Department of Chemical Engineering, Tatung University, Taipei City, Taiwan), Chao-Shuan Dai, Pei-Yi Chien, Shu-Wei Chou, Tsung-Wu Lin

Nickel sulfide/carbon nanotube nanocomposites as cathode materials for hybrid supercapacitors

s05-027

Yu Wei Lin (High Power Energy Storage Materials and Devices, Industrial Technology Research Institute, Hsinchu, Taiwan), Jun Long Li, Chung Hsiang Chao, Li Duan Tsai, Jason Fang

An Energy Enhanced, Long-Life Supercabattery Based on High Discharge Efficiency Hybrid Electrodes

s05-028

Xiaoxia Liu (Chemistry, Northeastern University, Shenyang, China), Li-Jie Sun, Ming-Hua Bai

Electrochemical Co-deposition of Polyaniline with Inorganic Oxides for Pseudocapacitive Application

s05-029

Zong-Huai Liu (School of Materials Science and Engineering, Shaanxi Normal University, Xian, China), Yun Long Bai, Gai Ni Zhang, Li Ping Kang, Zhi Bin Lei

Design and fabrication of supercapacitor electrodes with good rate performance from hole grapheme nanosheets

s05-030

Alina Pruna (Faculty of Physics, University of Bucharest, Bucharest, Romania), Qi Shao, Juan Antonio Zapien, Antonio Ruotolo

Effect of ZnO on Capacitive Properties of Core / Hybrid Shell Arrays

s05-031

Muniyandi Rajkumar (Chemical Engineering, National Tsing Hua University, Hsinchu, Taiwan)

Enhancing Ultrahigh Loading with High Areal Specific Capacitance in Nickel–Cobalt Double Hydroxides/ CNT composites for Supercapacitor Device

s05-032

Ashis Kumar Satpati (Analytical Chemistry Division, Bhabha Atomic Research Centre, Mumbai, India), M. K. Dey

Hydrothermally Prepared Reduced Graphene Oxide and Manganese Oxide Nano Rod Composite Materials for Supercapacitor Applications

s05-033

Indrajit Shown (Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, Taiwan), Abhijit Ganguly, Li-Chyong Chen, Kuei-Hsien Chen

Design and development of direct-growth *in-situ* doped Polypyrrole on carbon cloth as a high performance flexible supercapacitor

s05-034

Chao-Chi Tu (Department of Chemical Engineering and Biotechnology, National Taipei University of Technology, Taipei, Taiwan), Sheng-Sian Yang, Jun-Ming Chiu, Lu-Yin Lin

In-situ Polymerization of Pyrrole in MoS_2 Nanosheets as Highly Conductive Materials with Large Surface Area for Supercapacitors

s05-035

Chuan Xia (Materials Science & Engineering, King Abdullah University of Science & Technology, Jeddah, Saudi Arabia), Wei Chen, Xianbin Wang, Mohamed Hedhili, Nini Wei, Husam Alshareef

Polyaniline-RuO_2 Core-Shell Nanostructured Arrays for Very Stable and High Performance Pseudocapacitors

s05-036

Sainan Yang (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Yiju Li, Dianxue Cao, Guiling Wang

Reduced Graphene Oxide Decorated on MnO_2 Nanoflakes Grew on C/TiO_2 Nanowire Arrays for Supercapacitor

s05-037

Nobuko Yoshimoto (Graduate School of Science and Engineering, Yamaguchi University, Ube, Japan), In-Tae Kim, Nobuo Kouda, Masayuki Morita

Synthesis and Electrochemical Analysis of Electrodeposited MnO_2/C Composite Electrode for Supercapacitors

s05-038

Zi fan Zeng (Department of Materials Science, Sichuan University, Cheng Du, China), Ji liang Zhu, Xiao hong Zhu, Xi Liu, Chuang Kou, Fang yuan Xie

$Ni(OH)_2$ Nanowires with High Performance as Supercapacitor Electrode *via* Cathodic Electrodeposition

s05-039

Yaping Zhao (College of Chemistry, Chemical Engineering & Biotechnology, Donghua University, Shanghai, China), Hong Zhao, Caihong Liu, Bingzheng Song, Zaisheng Cai

Pulse Electropolymerization Synthesis of Polypyrrole Layers on Multiwalled Carbon Nanotubes coated Cotton Fabrics

Redox active species

s05-040

Shintaro Aoyagi (Department of Applied Chemistry, Tokyo University of Agriculture and Technology, Tokyo, Japan), Takumi Furuhashi, Yuta Abe, Keita Okazaki, Junichi Miyamoto, Etsuro Iwama, Wako Naoi, Katsuhiko Naoi

V-rated "Nanohybrid Supercapacitor" utilizing Ultrafast b-axis-controlled TiO_2 (B) Nanocrystals

s05-041

Kazuaki Kisu (Department of Applied Chemistry, Tokyo University of Agriculture and Technology, Tokyo, Japan), Shota Nakashima, Yuki Sakai, Etsuro Iwama, Yuki Orikasa, Patrick Rozier, Wako Naoi, Patrice Simon, Katsuhiko Naoi

Detailed Analysis on Carbon-Nested Ultrafast nano-$LiFePO_4$ Prepared by Means of Ultracentrifugation for Hybrid EES

s05-042

Jakub Menzel (Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Poznan, Poland), Krzysztof Fic, Elzbieta Frackowiak

Improving energy performance of electrochemical capacitors by combining redox reaction with hydrogen storage phenomena

s05-043

Prakash Ramakrishnan (Energy Systems Engineering, Daegu Gyeongbuk Institute of Science & Technology (DGIST), Daegu, Korea), Sangaraju Shanmugam

Electrochemical Performance of Nitrogen Doped Nano-channel Carbon Structures in Redox Electrolyte Supported Supercapacitor

Symposium 6: New Progress in Electrochemical Solar Cells

Dye sensitized solar cell

s06-001

Taame Abraha Berhe (Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei, Taiwan)

Laser Induced Degradation Study of $CH_3NH_3PbI_3$ Light Harvesting Oih-Perovskite Semiconductor

s06-002

I-Ting Chiu (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Chun-Ting Li, Chuan-Pei Lee, Pei-Yu Chen, Kuo-Chuan Ho

Highly Efficient Cobalt Selenide Hierarchical Nano-Wall for the Electro-Catalytic Counter Electrodes in Dye-Sensitized Solar Cells

s06-003

Zheng-Chang Huang (Chemical Engineering, Tatung University, Taipei, Taiwan)

Pt-free counter electrode of $NiCo_2S_4$ by two step dip-coating as dye-sensitized solar cells

s06-004

Chun-Ting Li (Chemical Engineering, National Taiwan University, Taipei, Taiwan), Chuan-Pei Lee, Chun-Ting Li, Miao-Syuan Fan, Yi-June Huang, Ling-Yu Chang, Jiang-Jen Lin, Kuo-Chuan Ho

Microemulsion-assisted Zinc Oxide Synthesis: Morphology Control and its Applications in Photoanodes of Dye-Sensitized Solar Cells

s06-005

Gerald Ensang Timuda (Energy Sciences, Tokyo Institute of Technology, Yokohama-shi, Japan), Runbang Tao, Keiko Waki

Electrochemical Analysis of Dye Sensitized Solar Cell Employing Indoline-based and Ruthenium-based Dye Combined with Volatile and Non-Volatile Solution-based Electrolyte

s06-006

Yu-Hao Tseng (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Miao-Syuan Fan, Chuan-Pei Lee, Chun-Ting Li, Ming-Chou Chen, Kuo-Chuan Ho

Efficient Quasi-Solid-State Dye-Sensitized Solar Cells with Novel Polymeric Ionic Liquids

Nanostructured semiconductors

s06-007

Yen-Chun Chuan Sun (Chemical Engineering, National Tsing Hua University, Hsinchu, Taiwan)

A Novel Preparation Method for Titanium Dioxide in the Rutile Phase for Electrochemical Photocatalytic Applications

s06-008

Kai-Chieh Tsai (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Hsin-Fu Teng, Wei-Nien Su, Bing-Joe Hwang

Surface Textured Silicon Photocathode for H_2 Production Improves Photoelectrochemical Water Splitting efficiency

s06-009

Shu-Yi Tsai (Department of Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan), Chung-Ta Ni, Kuan-Zong Fung

Infrared transparent $NiCo_2O_4$ thin film as a Front Electrode for Solar Cells

s06-010

Nan Zhang (Chemistry, Xiamen University, Xiamen, China), Changjian Lin, Miaoqiang Lv, Meidan Ye, Dajiang Zheng

Rutile TiO_2 Nanosheet Arrays on Thermally Oxidized TiO_2 Blocking Layer for Enhancing Efficiency of Perovskite Solar Cells

Photovoltaic

s06-011

Wahyu Diyatmika (Materials Science and Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Lingjun Xue, Jinn P. Chu

Thin film metallic glass as a diffusion barrier for flexible CIGS solar cell on stainless steel substrate: A feasibility study

Solar energy conversion

s06-012

Yen-Jhih Chen (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei City, Taiwan)

Fabrication of Ti doping Hematite Nanotubes Arrays Photoanode *via* Anodic Electrodeposition for Solar Water Splitting

s06-013

Ramona Gutkowski (Analytical Chemistry - Center of Electrochemical Science, Ruhr-Universität Bochum, Bochum, Germany), Kirill Sliozberg, Wolfgang Schuhmann

Improvement of the photoelectrocatalytic performance of $BiVO_4$ by metal doping and co-catalyst decoration using an optical scanning droplet cell

s06-014

Tsung-Yeh Ho (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei City, Taiwan)

The Study of Carrier Transport/Transfer Mechanism inside CZTS/MS(M=Zn, Cd, Cu)/TiO_2 Nanorods for Solar Water Splitting

s06-015

Moon-Sung Kang (Department of Environmental Engineering, Sangmyung University, Cheonan, Korea), Hye-Rin Kim

Performance Enhancement of Perovskite-based Solar Cells with TiO_2 Scaffold by Optimizing Electron-Hole Transport

s06-016

Jan Macak (Center of Materials and Nanotechnologies, University of Pardubice, Pardubice, Czech Republic), Milos Krbal, Filip Bures

Hybrid Photoelectrochemical Systems Based on Self-Organized TiO_2 Nanotubes and Novel Chromophores

s06-017

Wu Zhi (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Changjian Lin

Bi_2S_3 Nanoparticle Modified TiO_2 Nanotube Arrays for High Efficiency of Photoelectrochemical Hydrogen Production

Symposium 7: Electrodeposition - The Frontier Approach in Material Science and Nanofabrication

Additives

s07-001

Satoru Watanabe (Faculty of Science and Technology, Tokyo University of Science, Noda, Japan), Isao Shitanda, Yoshinao Hoshi, Tatsuo Aikawa, Masayuki Itagaki

Intelligent Self-lubricant Composite Nickel Coating based on Phase Transition of Polystyrene and Polymethyl Methacrylate Particles

Alloy deposition

s07-002

Mao-Chun Hung (Chemical Engineering, National Chung Hsing University, Taichung, Taiwan), Po-Fan Chan, Wei-Ping Dow, Hsiao-Yen Lee, Yi-Sheng Lin, Ping-Feng Yang

Effect of Plating Additives on Microstructure and Properties of Electrodeposited Ni-Fe Alloy

s07-003

Sho Kawamura (Department of Applied Material and Life Science, Graduate School of Engineering, Kanto Gakuin University, Yokohama-shi, Japan), Nobuaki Watanabe, Ichiro Koiwa

Pulse Erectroplating of Cu-Mo Alloy @Film @Using Disodium Molybdate

s07-004

Tomio Nagayama (Surface Finishing Technology Lab., Kyoto Municipal Inst. of Industrial Technology and Culture, Kyoto, Japan), Takayo Yamamoto, Toshihiro Nakamura

Mechanical properties of electrodeposited Fe-Ni alloys in the Invar composition range

s07-005

Toshihiro Nakamura (Surface Finishing Technology Lab., Kyoto Municipal Institute of Industrial Tech. and Culture, Kyoto, Japan), Takayo Yamamoto, Tomio Nagayama

Contact Resistance of Thin Gold Overlay on Cu-Sn Alloy Electrodeposits with Various Compositions

s07-006

Yu-Sheng Wang (Department of Medicinal and Applied Chemistry, Kaohsiung Medical University, Kaohsiung, Taiwan)

Voltammetric Study and Electrodeposition of Zinc in N-butyl-N-methylpyrrolidinium Bis(trifluoromethanesulfonyl)imide Room Temperature Ionic Liquid

s07-007

Takayo Yamamoto (Surface Finishing Technology Lab., Kyoto Municipal Institute of Industrial Tech. and Culture, Kyoto, Japan), Tomio Nagayama, Toshihiro Nakamura

Fabrication of the three-dimensional micro structure by Fe-Ni alloy electroforming process -Effect of saccharin concentration-

s07-008

Sachio Yoshihara (Department of Material and Environmental Chemistry, Utsunomiya University, Utsunomiya, Japan), Wataru Oikawa, Yoshifusa Ishikawa, Kazuyoshi Suzuki, Daisuke Suzuki

Application of Amorphous Alloy Plating to Various Industrial Fields

POSTERS

Bi-polar electrodeposition

s07-009

Shih-I. Wen (Chemical Engineering, National Chung Hsing University, Taichung, Taiwan), Wei-Ping Dow

Using Copolymers as Suppressors in a Copper Plating Bath for Through-Hole Filling

Electroless deposition

s07-010

Chih-I. Hsu (School of Defense Science, National Defense University, Taoyuan, Taiwan), Wang Gao-Liang, Ger Ming-Der, Hou Kung-Hsu

Properties of electroless Ni–P/BN(h) composite coatings at elevated temperatures

s07-011

Xinyu Liu (Chemical and Biomolecular Engineering, Case Western Reserve University, Cleveland, USA), Xun Zhan, Frank Ernst, Rohan Akolkar, Werner Richtering

Electroless Deposition of Amorphous Nickel-Tungsten-Phosphorus Alloys with Superior Resistance to Crystallization

s07-012

Tzu-Hsuan Tsai (Department of Materials and Mineral Resources Engineering, National Taipei University of Technology, Taipei, Taiwan), Yu-Pei Shih

Recovery of Nanosilver from Si-Wafer Manufacturing Wastes

s07-013

Yaping Zhao (College of Chemistry, Chemical Engineering & Biotechnology, Donghua University, Shanghai, China), Hong Zhao, Caihong Liu, Bingzheng Song, Zaisheng Cai

Electromagnetic Shielding Polyamide Fabrics prepared by Electroless Ni Plating with Chitosan-Nickel Complexes Activation

Nucleation

s07-014

Atsushi Iwanaga (Elemental Technology R&D, Y Lab, Furukawa, Japan), Hisayoshi Matsushima, Satoshi Miyazawa, Shinichi Nagano

Numerical Simulation of Current Density Distribution between Vertical Cu Electrode

s07-015

Peter Keech (Nuclear Waste Management Organization, Toronto, Canada), Peter Lin, Neil Mahalanobis

Electrodeposited Copper Coatings for Used Fuel Containers

s07-016

Kai Nakamura (Materials Science and Engineering, Kyoto University, Kyoto, Japan), Atsushi Kitada, Kazuhiro Fukami, Kuniaki Murase

Characterization of $AlCl_3$/Diglyme Solution for Aluminum Electrodeposition

s07-017

Jon Ustarroz (Electrochemical and Surface Engineering (SURF), Vrije Universiteit Brussel, Brussels, Belgium), El Amine Mernissi Cherigui, Pieter Bouckenooge, Kadir Sentosun, Mesfin Haile Mamme, Herman Terryn, Sara Bals, Annick Hubin

Electrodeposition of Nickel Nanostructures from Deep Eutectic Solvents: New Insights into Nucleation and Growth Mechanisms

Thin films

s07-018

Chun-Yi Chen (Precision and Intelligence Laboratory, Tokyo Institute of Technology, Yokohama, Japan), Xun Luo, Tso-Fu Mark Chang, Masato Sone

Effect of Supercritical Carbon Dioxide on Crystal Structure of Electrodeposited Cobalt Films

s07-019

Caimei Fan (College of Chemistry and Chemical Engineering, Taiyuan University of Technology, Taiyuan, China), Yingyuan Hu, Rui Li, Xiaoming Mao

One-step Synthesis of Porous BiOBr Film from Bi Plate *Via* Electrochemical Method

s07-020

Yuya Ito (Department of Applied Material and Life Science, Graduate School of Engineering, Kanto Gakuin University, Yokohama-shi, Japan), Ichiro Koiwa, Nobuaki Watanabe

Control of Crystal Orientation of Electrodeposited Aluminum Films from Bath Using $DMSO_2$ as a Solvent

s07-021

Ichiro Koiwa (Department of Applied Chemistry, College of Science and Engineering, Kanto Gakuin University, Yokohama-shi, Japan), Nobuaki Watanabe, Akihiro Yamamoto, Kenta Chokki, Kazuhiro Yabe

Zn-$AlO_x(OH)_y$ Composite Films Prepared from Non-Suspended Solution by Electrochemical Technique

s07-022

Song-Zhu Kure-Chu (Department of Chemistry and Bioengineering, Iwate University, Morioka, Japan), Toru Ogasawara, Hitoshi Yashiro, Kuniaki Sasaki

Thermal Stability and Sulfidizing Resistance of High Reflective Sn/Ag_3Sn-based Films Electrodeposited on Cu

s07-023

Chia Wen Liao (Chung-Cheng Institute of Technology, National Defense University, Taoyuan, Taiwan), Kung Hsu Hou, Ming-Der Ger

Characterization of the Cr-C-Si_3N_4 Composite Coatings Electroplated from a Trivalent Chromium Bath

s07-024

Cheng-Lan Lin (Department of Chemical and Materials Engineering, Tamkang University, New Taipei City, Taiwan), Kuen-Yi Ding

Electrostatic Field-Assisted Direct Potentiostatic and Pulse-Potential Electrodeposition of Prussian Blue Films

s07-025

Kuniaki Murase (Department of Materials Science and Engineering, Kyoto University, Kyoto, Japan), Yusuke Seki, Tsutomu Shinagawa, Atsushi Kitada, Kazuhiro Fukami

Electrodeposition of Cu_2O from Aqueous Lactate Solutions - Studies on Copper(II) Complexes in Alkaline Deposition Baths

s07-026

Yusuke Okamura (IMRAM, Tohoku University, Sendai, Japan), Itaru Honma

Electrodeposition of mono-layer graphene from carboxylic acid under hydrothermal condition

s07-027

Liza Rassaei (Chemical Engineering, Delft University of Technology, Delft, Netherlands), Hanan Al-Kutubi, Jorge Gascon, Ernst Sudholter, Hamid Reza Zafarani, Alla Dikhtiarenko

Synthesis of ZIF-8 metal organic framework thin film on ZnO nanorods

s07-028

Mei-Jywan Syu (Chemical Engineering, National Cheng Kung University, Tainan, Taiwan), Yan-Di Tseng

Amperometric Detection of Bilirubin *via* A Room-Temperature Ionic Liquid-Imprinted Polymer Composite Electrode

s07-029

Takuya Tokuda (Graduate School of Advanced Integrated Science, Chiba University, Chiba-shi, Inage-ku, Yayoi-cho, Japan), Dan Takamura, Katsuyoshi Hoshino

Electrochemical preparation of novel metal-like lustrous films

s07-030

Pu-Wei Wu (Materials Science and Engineering, National Chiao Tung University, Hsinchu, Taiwan), Po-Chun Chen, Chia-Yun Hsu, Shih-Cheng Chou, Aniruddha Joi, Yezdi Dordi, Jyh-Fu Lee

Electrodeposition of CuMn thin film from a nonaqueous electrolyte

s07-031

Yu-Beom Yeon (Department of Advanced Materials Chemistry, Korea University, Sejong Special Self-Governing City, Korea), Viswanathan Saji

Electrodeposition of Copper, Indium, Gallium and Selenium on Molybdenum Investigated by Voltammetry, X-Ray Diffraction, and Scanning Electron Microscopy/Energy Dispersive Spectroscopy

s07-032

Claudio Zafferoni (Department of Chemistry Ugo Schiff, Florence, Italy), Serena Cinotti, Francesco Di Benedetto, Andrea Giaccherini, Giordano Montegrossi, Annalisa Guerri, Francesco Carlà, Roberto Felici, Massimo Innocenti

Synthesis and characterization of metal sulfides for solar devices

Symposium 8: Corrosion and Passivity

Corrosion

s08-001

Silviu Drob (Electrochemistry and Corrosion, Institute of Physical Chemistry Ilie Murgulescu, Bucuresti, Romania), Cora Vasilescu, Jose Maria Calderon Moreno, Petre Osiceanu

A New Dental Alloy with Improved Properties: Its Corrosion Resistance in Various Conditions Simulating Oral Cavity Environment

s08-002

I-Wen Huang (Materials Science and Engineering, The Ohio State University, Columbus, USA), Rudolph Buchheit

Assessing and Predicting Concurrent Uniform Corrosion of Aluminum Alloys as a Function of pH, Temperature, Time, and [Cl^-]

s08-003

Jia-Lin Jhan (Department of Chemical Engineering and Materials Science, Yuan Ze University, Taoyang , Taiwan), Leo Chau-Kuang Liau

Corrosion of Indium Tin Oxide Films in SiO_2 Solutions

s08-004

Katsutoshi Nakayama (Graduate School of Chemical Sciences and Engineering, Hokkaido University, Sapporo, Japan), Etsushi Tsuji, Yoshitaka Aoki

Fabrication of super-liquid-repellent aluminum mesh with chemical etching/anodizing

s08-005

Mikhail Pletnev (Innovative, Izevsk State Technical University, Izhevsk, Russia)

Comparative analysis of the anodic dissolution of iron at low and high over potentials

s08-006

Britta Schafsteller (BTT-SF, Atotech Deutschland, Berlin, Germany), Mathias Wuensche, Sebastian Weissbrod, Grigory Vazhenin, Constanze Donner

Au Immersion on mid NiP Substrates – Balance between NiP Dissolution and Au-Adhesion properties

s08-007

Maria Stepanova (Materials Science and Engineering, Norwegian University of Science and Technology, Trondheim, Norway), Otto Lunder, Jan Halvor Nordlien, Kemal Nisancioglu

Corrosion resistance of zinc diffusion layers on aluminium

In-situ corrosion measurements

s08-008

Thangaraj Balusamy (Materials Recycling Design Group, NIMS, Tsukuba, Japan)

Evaluation of the corrosion behaviour of epoxy coated carbon steel at the damaged zone in saturated $Ca(OH)_2$ with varying concentration of chloride ions by localized electrochemical impedance spectroscopy

s08-009

Lin Niu (Department of Chemistry, Shandong University, Jinan, China), Xiaoping Han, Yu Liu, Weiwei Zhang, Rui Ma, Shuai Li, Tong Li

Local Electrochemical Study on the Effect of Residual Stresses on Localized Corrosion Susceptibility of Type 316 Stainless Steels

s08-010

Bo Zhao (Research and Development Center, China Special Equipment Inspection And Research Institute, Beijing, China), Zhiyong Liu, Cuiwei Du, Xiaogang Li, Binan Shou, Tong Xu

Influence of Crevice Thickness to Corrosion Behavior of API X80 Steel under Disbonded Coating in Acid Soil Environment

Passive films

s08-011

Ahmed Galal (Chemistry, Kuwait University, Kuwait, Kuwait), Mohammad BinSabt, Kamal Shalabi, Faizah Al-Kharafi

Protection of Al93Mg7 Alloy against Corrosion in NaCl Containing Solutions Using Silane and Silane-Graphene Films

s08-012

Shun-Yi Jian (Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan), Yueh-Lien Lee, Chao-Sung Lin

Electrochemical Corrosion Behavior of Permanganate Conversion Coating on AZ31B Magnesium Alloys - Long Term Evaluation by EIS

s08-013

Chengqiang Ren (School of Materials Science and Engineering, Southwest Petroleum University, Chengdu, China), Ye Peng, Jiameng Li, Jingsi Hu, Bo Liu, Li Liu

Electrochemical Investigation on Passivation Characteristic of P110 Steel in Alkaline Solution

s08-014

Emmanuel Rocca (Institut Jean Lamour UMR CNRS, Université de Lorraine, Vandoeuvre Les Nancy, France), Joffrey Tardelli

Electrochemical properties of η-$MgZn_2$ phase in sulfuric acid : anodizing behavior at high potential

s08-015

Cora Vasilescu (Electrochemistry and Corrosion, Institute of Physical Chemistry Ilie Murgulescu, Bucuresti, Romania), Silviu Drob, Silviu Preda, Jose Maria Calderon Moreno, Petre Osiceanu

Passive Film Characterization on New Ternary Ti-Ta-Zr Alloy Surface

s08-016

Delphine Veys-Renaux (Institut Jean Lamour, Université de Lorraine, CNRS, Vandoeuvre les Nancy, France), Emmanuel Rocca, Khadoudj Guessoum

Zinc anodizing at high voltage in alkaline media

Symposium 9: Electrocatalytic Materials

Electrocatalytic materials

s09-001

Nathalia Abe Santos (Instituto de Química de São Carlos, Universidade de São Paulo, São Carlos, Brazil), Patricia Gon Corradini, Joelma Perez

Study of ethanol electro-oxidation on PtNd/C and PtSnNd/C: stability test and FTIR

s09-002

Ludwig Asen (Fakultät für Chemie, Technische Universität München, Garching, Germany), Ehab Mostafa, Wenbo Ju, Sladjana Martens, Ulrich Heiz, Ulrich Stimming, Oliver Schneider

Electrodeposition of Novel Materials as ORR Catalysts for MEAs

s09-003

Helmut Baltruschat (Chemistry, University of Bonn, Bonn, Germany), Hatem M.A. Amin, Sevda Ayata

Synergistic Electrocatalytic Effects on Oxides + Ag - Electrodes for Oxygen Reduction and Evolution

s09-004

Ausra Baradoke (Department of Nanoengineering, Center for Physical Sciences and Technology, Vilnius, Lithuania), Isabel Pastoriza-Santos, Elisa Gonzalez-Romero

Ruthenium Nanocomposites for Electrochemical Detection: Design and Modification of Graphene Electrodes for Biosensors

s09-005

Stefan Barwe (Analytical Chemistry – Center for Electrochemical Science, Ruhr-Universität Bochum, Bochum, Germany), Stefan Klink, Wolfgang Schuhmann

A poly(benzoxazine) as binder matrix for OER catalysts derived from Prussian blue analogue precursors

s09-006

Jiajin Bi (Graduate School of Engineering, Yokohama National University, Yokohama, Japan), Koichi Matsuzawa, Yuji Kohno, Shigenori Mitsushima

Catalytic Activity and Durability for Oxygen Evolution on $LaNiO_3$/Ni for Alkaline Water Electrolysis under Potential Cycling

s09-007

Stanko Brankovic (Electrical and Computer Engineering, University of Houston, Houston, USA), Qiuyi Yuan, Hieu Doan, Lars Grabow

Structure *vs*. Properties Relation in Novel RuPt Core-Edge Catalyst Nanoclusters

s09-008

Cheng-Chuan Chen (Department of Bio-Industrial Mechatronics Engineering, National Taiwan University, Taipei City, Taiwan)

Pd-based bimetallic nanocatalysts for alkaline glucose electrooxidation and fuel cells application

s09-009

Qiaoli Chen (Department of Chemistry, Xiamen University, Xiamen, China), Zhaoxiong Xie

Synthesis of Excavated Trioctahedral Au¨CPd Alloy Nanocrystals with Tunable Composition for Electro-Oxidation of Ethanol

s09-010

Yuan Chen (School of Chemical and Biomedical Engineering, Nanyang Technological University, Singapore, Singapore)

Bacteria Derived Carbon as High-Performance Electrocatalysts

s09-011

Kui Cheng (College of Material Science and Chemical Engineering, Harbin Engineering University, Harbin, China)

Design and fabrication Co_3O_4-based electrode and its application for H_2O_2 electroreducion

s09-012

Nan-Kuang Chou (Department of Chemical and Materials Engineering, National Kaohsiung University of Applied Sciences, Kaohsiung City, Taiwan), Meng-Shan Hsieh, Chien-Liang Lee

Different-sized truncated Pd nanocubes for glucose electrooxidization

s09-013

Martín Dávila (Fisicoquímica, Benemérita Universidad Autónoma de Puebla, Puebla, Mexico)

Electrochemical Oxidation of Dibenzothiophene and Dibenzothiophene Sulphone

s09-014

Ali Ehsani (Chemistrty, Qom University, Qom, Iran)

Physioelectrochemical properties and catalytic activity of green synthesized metal oxide nanoparticles and conductive polymer composite film

s09-015

Makoto Eto (Graduate School of Engineering, Oita University, Oita, Japan), Taro Kinumoto, Kohei Ono, Tomoki Tsumura, Masahiro Toyoda

Oxygen Evolution Reaction Behavior of Vapor Grown Carbon Fiber and the Loading Effect of $LaMnO_3$ in KOH Aqueous Solution

s09-016

Miao-Syuan Fan (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Chuan-Pei Lee, Chun-Ting Li, Yi-June Huang, R. Vittal, Kuo-Chuan Ho

Molybdenum Disulfide/Nitrogen-Doped Graphene Composite as an Electrocatalytic Material for Dye-Sensitized Solar Cells

s09-017

Lucia Fernandez Macia (Electrochemical and Surface Engineering Group, Vrije Universiteit Brussel, Brussels, Belgium), Bart Geboes, Jon Ustarroz, Laurens Stevaert, Tom Breugelmans, Annick Hubin

A Reliable and Quantitative Characterization of Electrocatalysts Towards the Oxygen Reduction Reaction from LSV/RDE Experiments

s09-018

Kobra Ghobadi (Chemistry, Yazd University, Yazd, Iran)), Hamid Reza Zare, Hossein Khoshro, Alireza Gorji, Abbas Ali Jafari

Electrocatalytic Synthesis of Cinnamic Acid by Reaction of Electrocatalytic Activated CO_2 with Phenylacetylene

s09-019

Kristoffer Hedenstedt (Chemistry and Molecular Biology, University of Gothenburg, Gothenburg, Sweden), Elisabet Ahlberg, Nina Simic, Mats Wildlock

Electrochemical Investigation of Water Reduction on Goethite, Lepidocrocite and Mild Steel in Slightly Alkaline Electrolyte

s09-020

Takahiro Hirai (Dept of Science of Environment and Mathematical Modeling, Doshisha University, Kyotanabe, Japan), Tian Zhang, Masatsugu Morimitsu

Composition, Structure, and Kinetics of RuO_2-Ta_2O_5/Ti Anode for Oxygen Evolution in H_2SO_4 Solutions

s09-021

Huin-Ning Huang (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Wei-Hung Chiang

Synthesis of Metal Nanoparticle/Graphene Nanocomposites using Atmospheric-Pressure-Microplasma-Assisted Electrochemistry

s09-022

Yi-June Huang (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Chuan-Pei Lee, Miao-Syuan Fan, Chun-Ting Lee, R. Vittal, Kuo-Chuan Ho

A Pt-Free Counter Electrode based on Novel Cobalt Diselenide Architectures for Dye-Sensitized Solar Cells

s09-023

Eunkyoung Hwang (School of Integrative Engineering, Chung-Ang University, Seoul, Korea), Soo-Kil Kim, Sung Hoon Hong, Jihui Choi, Jin Yeung Kim, Hoyoung Kim

Electrocatalysts for CO_2-C_1 Fuel Inter-conversion

s09-024

Suyeon Hyun (Energy Systems Engineering, Daegu Gyeongbuk Institute of Science & Technology (DGIST), Daegu, Korea), Vignesh Ahilan

Porous $Co_3V_2O_8$ Nanostructures as Promising Electrocatalyst for Oxygen Evolution Reaction in Alkaline Medium

s09-025

Yukiko Ishimura (Dept of Science of Environment and Mathematical Modeling, Doshisha University, Kyotanabe, Japan), Kenji Kawaguchi, Masatsugu Morimitsu

Oxygen Reduction on RuO_2-Ta_2O_5 Mixed Oxide Catalyst in Alkaline Solution

s09-027

Hwakyeung Jeong (Chemistry, Chungbuk National University, Cheongju, Korea)

Electrodeposition of Nanoflake Pd Structures: Structure-Dependent Wettability and SERS Activity

s09-028

Abdel-Nasser Kawde (Chemsitry, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia)

Successful Strategies to Overcome the Carbon Electrodes Surfaces Fouling of Phenols

s09-029

Jin Yeong Kim (School of Integrative Engineering, Chung-Ang University, Seoul, Korea), Jihui Choi, Sung Hoon Hong, Hoyoung Kim, Eunkyoung Hwang, Soo-Kil Kim

Ru/M Bi-layered Oxide Catalysts for Oxygen Evolution Reaction (OER) in Acidic Water Splitting

s09-030

Seulki Kim (Department of Applied Chemistry, Konkuk University, Chungju, Korea), Changhyun Lee, Noseung Myung

Synthesis of Pt-CuO Composite *via* Electrodeposition Followed by Galvanic Replacement-Heat Treatment and Its Application to Non-Enzymatic Glucose Sensor

s09-031

Joosun Kim (High-Temperature Energy Materials Research Center, Korea Institute of Science and Technology, Seoul, Korea), Donghyun Bae, Miyoung Yoon, Eunseok Kwon, Seunghwan Lee, Jooho Moon, Hyunjung Shin

Catalytic Performance and Characterization of Iron Oxide-Based Composite Catalyst for Reduction of CO_2

s09-032

Shuhei Kimura (Dept of Science of Environment and Mathematical Modeling, Doshisha University, Kyotanabe, Japan), Kenji Kawaguchi, Masatsugu Morimitsu

Effects of Precursor Solution on Morphology and Catalytic Activity of RuO_2-based Ti anode for Oxygen Evolution

s09-033

Anthony Kucernak (Chemistry, Imperial College London, London, United Kingdom)

New palladium phosphide catalysts for fuel cell relevant reactions

s09-034

Kousuke Kumamoto (Dept of Science of Environment and Mathematical Modeling, Doshisha University, Kyotanabe, Japan), Tian Zhang, Masatsugu Morimitsu

Effects of Composition of Amorphous IrO_2-Ta_2O_5 Coatings on Oxygen Evolution in Alkaline Solutions

s09-035

Dong Wook Lee (Department of Chemical and Biomolecular Engineering, Yonsei University, Seoul, Korea), Woong Hee Lee, Hansung Kim

Enhancement on ORR Activity of N-Doped Carbon Catalysts Derived from Melamine Based Polymer

s09-036

Seunghwa Lee (School of Environmental Science and Engineering, Gwangju Institute of Science and Technology, Gwangju, Korea), Jaeyoung Lee

On The Role of Cl^- : Synergistic Effects with Cu_2O for The Electroreduction of CO_2 to Multi-Carbon Fuels

s09-037

Andreas Lesch (Laboratory of Physical and Analytical Electrochemistry, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland), Victor Costa Bassetto, Hubert Girault

Preparing electrocatalysts for energy conversion by inkjet printing and photonic curing in one fabrication process

s09-038

Philipp Lettenmeier (Institute of Engineering Thermodynamics, German Aerospace Center, Stuttgart, Germany), Schwan Hosseiny, Li Wang, Aldo Saul Gago, Kaspar Andreas Friedrich

Synthesis and Characterization of Highly Active Ir Nanoparticles for Oxygen Evolution Reaction in Acid Media

s09-039

Xiaoheng Liu (College of Chemical Engineering, Nanjing University of Science and Technology, Nanjing, China), Wei Chen

One-step Hydrothermal Route to Fabricate Novel $ZnIn_2S_4$/g-C_3N_4 Heterojunction Photocatalysts with Highly-efficient Visible Light Response

s09-040

Cancelled

s09-041

Nai-Chang Lo (Chemistry, National Cheng Kung University, Tainan, Taiwan)

Electrochemical Formation of Cu Nanoparticles in Tributyl-Methylammonium bis((trifluoromethyl) sulfonyl)imide Room-Temperature Ionic Liqiud

s09-042

Juan Manriquez (Department of Research, Cideteq, Pedro Escobedo, Mexico)

Orange II mineralization on C-modified nanoparticulate TiO_2 cathodes able for producing OH• radicals through the O_2 reduction which is simultaneously generated on a grade 2 Ti anode *via* the H_2O oxidation

s09-043

Yu-Xiang Mao (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Chun-Jern Pan, Men-Che Tsai, Wei-Nien Su, Bing-Joe Hwang

Ni-based bimetallic nanoparticles as active and durable catalysts towards hydrogen oxidation reaction

s09-044

Jun Maruyama (Environmental Technology Research Division, Osaka Municipal Technical Research Institute, Osaka, Japan), Takahiro Hasegawa, Satoshi Iwasaki, Tomoko Fukuhara, Yuki Orikasa, Yoshiharu Uchimoto

Carbonaceous Thin Film Coating with Fe–N4 Site for Enhancement of Dioxovanadium Ion Reduction

s09-045

Kenji Matsumae (Engineering, Yokohama National University, Yokohama, Japan), Kohei Nagai, Yuji Kohno, Koichi Matsuzawa, Shigenori Mitsushima

Degradation of IrO_2-Ta_2O_5 / Ti anode with toluene contamination

s09-046

Hisayoshi Matsushima (Faculty of Engineering, Hokkaido University, Sapporo, Japan), Shota Shibuya, Ryota Ogawa, Mikito Ueda

Kinetic Isotope Effect on Hydrogen Evolution and Oxidation Reaction

s09-047

Eugenijus Norkus (Department of Catalysis, Center for Physical Sciences and Technology, Vilnius, Lithuania), Jane Jaciauskiene, Kestutis Prusinskas, Irena Stalnioniene, Loreta Tamasauskaite-Tamasiunaite, Dordi Yezdi, Aniruddha Joi

The Use of Environmentally-Friendly Natural Polyols as Cu(II) Ligands in Electroless Copper Plating Processes

s09-048

Eugenijus Norkus (Department of Catalysis, Center for Physical Sciences and Technology, Vilnius, Lithuania), Loreta Tamasauskaite-Tamasiunaite, Zita Sukackiene, Aldona Balciunaite, Algirdas Selskis

Gold Nanoparticles Modified Cobalt-Boron-Copper and Cobalt-Boron-Tungsten-Copper as Electrocatalysts for Borohydride Oxidation

s09-049

Lidia Jagoda Opuchlik (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Renata Bilewicz

Anisotropic gold nanoplates – characterization and application in catalysis

s09-050

Ali Riza Ozkaya (Chemistry Department, Marmara University, Istanbul, Turkey), Zuhal Yazar, Mehmet Piskin, Zafer Odabas

Redox properties and electrocatalytic oxygen reducing performances of various novel metal phthalocyanines

s09-051

Chien-Yeh Pan (Department of Applied Chemistry, National Chiao Tung University, Taipei, Taiwan), Chia-Kan Hao, Chi-Shen Lee

Metal-doped Pyrochlore as Novel Anode Material for Intermediate Solid Oxide Fuel Cell

s09-052

Jun Peng (Faculty of Chemistry, Northeast Normal University, Key Laboratory of Polyoxometalate Science of Ministry of Education, Changchun, China)

Assembly of hybrids based on Keggin POMs and Co-tris(imidazolyl) complexes with bifunctional electrocatalytic activities

s09-053

Morihiro Saito (Department of Applied Chemistry, Tokyo University of Agriculture and Technology, Koganei-shi, Japan), Shinpei Kosaka, Chiaki Tsukada, Hiroshi Suzuki, Hidenobu Shiroishi, Yumi Tanaka, Shiro Seki

New Air Electrode Catalysts Based on Mn Oxide Nanosheet/Nanocarbon Composite Materials for Li Air Batteries

s09-054

Yanyan Song (College of Science, Northeastern University, Shenyang, China), Zhida Gao, Patrik Schmuki

Carbon Cladded TiO_2 Nanotubes Enabling Highly Defined RuO_2 Decoration for Efficient Supercapacitor Performance

s09-055

Yung-Tao Sung (Chemical Engineering, National Taipei University of Technology, Taipei, Taiwan), Jun-Ming Chiu, Chao-Chi Tu

Improved Visible-light Photoelectrochemical Water Oxidation using Titanium Dioxide /Antimony Trisulfide Heterojunction Structure

s09-056

Hogiartha Sutiono (Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Ching-Hsiang Chen, Wei-Nien Su, Liang-Yih Chen, Bing-Joe Hwang

A Shortcut: Core (Rutile) – Shell (Anatase) Nanorods for Highly Efficient Solar Water-Splitter

s09-057

Takuma Suzuki (Department of Pure and Applied Chemistry, Tokyo University of Science, Noda, Japan), Yoshinao Hoshi, Isao Shitanda, Masayuki Itagaki

Motion control of TiO_2/Pt/Au nanomotor by UV light irradiation

s09-058

Loreta Tamasauskaite-Tamasiunaite (Department of Catalysis, Center for Physical Sciences and Technology, Vilnius, Lithuania), Gilius Kisielius, Teofilius Kilmonis, Aldona Balciunaite, Ina Stankeviciene, Aldona Jagminiene, Agne Matuseviciute, Eugenijus Norkus

Preparation of Graphene Supported PtCoMo by Electroless Deposition

s09-059

Dong-Ying Tzou (Chemical Engineering and Materials Science, Yuan Ze University, Chung-Li, Taiwan), Chien-Te Hsieh, Yu-Fu Chen, Jen-Hao Hsueh

Graphene and Carbon Nanotube Composites as Electrode Materials for Electrochemical Capacitors in Organic Electrolyte

s09-060

Dong-Ying Tzou (Department of Chemical Engineering and Materials Science, Yuan Ze University, Chung-Li, Taiwan)

Synthesis of MnO_2/Carbon Composites as Electrode Materials for Supercapacitors

s09-061

Yusuke Ujino (Dept of Science of Environment and Mathematical Modeling, Doshisha University, Kyotanabe, Japan), Kenji Kawaguchi, Masatsugu Morimitsu

Formation and Electrochemical Behaviors of RuO_2-Ta_2O_5 Coating on Pb Substrate for Oxygen Evolution

s09-062

Shan-Yu Wang (Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Yan-Sheng Li, Wei-Hung Chiang

Controllable Synthesis of Metal Nanoparticle/Graphene Nanoribbon Composites

s09-063

Chen-Hao Wang (Department of Materials Science and Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Yu-Chen Shih, Yu-Chung Chang, Ning-Yih Hsu, Yi-Sin Chou

Functionalization of Carbon Felt as Catalytic Material for Vanadium Redox Flow Battery

s09-064

Yu-Ching Weng (Department of Chemical Engineering, Feng Chia University, Taichung, Taiwan), Wei-Fen Xiong

Screening of Ru-based Electrocatalysts for Oxygen Reduction by Scanning Electrochemical Microscopy

s09-065

Lindsay Wilson (Chemistry, University of the Western Cape, Cape Town, South Africa), Candice Rassie, Priscilla Baker, Emmanuel Iwuoha

Electrochemical Responses of Transglutaminase Immunosensor Developed on a Polypyrrole-Cobalt (II) Salicyladiimine Dendritic Composite Material

s09-066

Ching Chou Wu (Department of Bio-Industrial Mechatronics Engineering, National Chung Hsing University, Taichung, Taiwan), Ming Yuan Lee

Fabrication of nanostructured copper phosphate electrodes for the detection of α-amino acids

s09-067

Yi-Shan Wu (Department of Chemical and Materials Engineering, National Kaohsiung University of Applied Sciences, Kaohsiung City, Taiwan), Chien-Liang Lee

Electrophoretic deposition of graphene sheets on porous nickel foam as effective catalysts for oxygen evolution reaction and hydrogen peroxide sensor

s09-068

Ke Ye (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Dianxue Cao, Hongyu Zhang, Long Yang, Xin Wang, Kui Cheng

Three-dimensional Nickel Film Electrodeposited on Porous Carbon Sponge: High Catalytic Performance and Low-cost Anode for Urea Electro-oxidation in Alkaline Medium

s09-069

Hiromu Yoshida (Department of Material Chemistry, Graduate School of Engineering, Kyoto University, Kyoto, Japan)

Fundamental Studies on Electrochemical Oxidative Properties of a Gold Nanoparticle-Attached Palladium Electrode

s09-070

Sawaguchi Yuki (Science and Engineering, Yokohama National University, Yokohama, Japan), Yasutomo Takakuwa, Kensaku Nagasawa, Yuji Kohno, Koichi Matsuzawa, Shigenori Mitsushima

Polarization for a toluene hydrogenation electrolyzer with various concentration of toluene feed

s09-071

Xinsheng Zhang (Department of Chemical Reaction Engineering, East China University of Science and Technology, Shanghai, China), Rensheng Zhong, Dongfang Niu

The effect of surface functional groups of carbon nanofiber on oxygen reduction reaction

s09-072

Ming Zhou (Chemistry, The University of Hong Kong, Hong Kong, China), Kwong-Yu Chan

RuO_2 nanoparticles loaded well-defined iron-nitrogen doped mesoporous core-shell carbon spheres as an effective cathode for rechargeable lithium-oxygen battery

Symposium 10: Electrochemical Technology: New Challenges for a More Competitive Economy

Electrochemical technology

s10-001

Henry Bergmann (FB 6 & 7, Anhalt University, Köthen, Anh., Germany)

On the continuity of chlorine production during electrochemical water disinfection

s10-002

Roel Bisselink (Water Treatment, TNO, Zeist, Netherlands), Mathias Panjer

Indium recovery from secondary sources by electrowinning

s10-003

Roel Bisselink (Water Treatment, TNO, Zeist, Netherlands), Lourens Feenstra

Electrochemical synthesis of hydrogen peroxide coupled with UV-C for the oxidation of endocrine disruptor compounds

s10-004

Erika Bustos (Science, Centro de Investigación y Desarrollo Tecnológico en Electroq, Querétaro, Mexico), Maribel Pérez-Corona, José Alberto García, Gabor Taller, Dorothya Polgár, Zsuzssana Plank

The Cone Penetration Test and 2D Imaging Resistivity as Tools to Simulate the Distribution of Hydrocarbon in Soil

s10-005

Miao-Syuan Fan (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Ling-Yu Chang, Chuan-Pei Lee, R. Vittal, Jiang-Jen Lin, Kuo-Chuan Ho

Synthesis of a Novel Polymeric Ionic Liquid for Electrochromic Device Application

s10-006

Ali Farhat (Advanced Water Management Centre, University of Queensland, Brisbane, Australia), Stephan Tait, Jurg Keller, Jelena Radjenovic

Removal of Persistent Organic Contaminants by Electrochemically Activated Sulfate

s10-007

Carmen Maria Fernandez Marchante (Chemical Engineering, University of Castilla La Mancha, Ciudad Real, Spain), Manuel Andres Rodrigo, Carolina Risco, Cristina Sáez, Rubén López-Vizcaíno, Pablo Cañizares, Vicente Navarro

Electrokinetic remediation of natural soil polluted with the herbicide 2,4-D

s10-008

Sergi Garcia-Segura (Chemistry, Universidade Federal do Rio Grande do Norte, Natal, Brazil), Amison Rick Lopes da Silva, Gustavo Rodrigues de Oliveira, Carlos Alberto Martinez-Huitle

Electrochemical Oxidation of 2-Naphthol on BDD Anodes: Dissolved Oxygen Participation, Mechanism and Theoretical Calculations

s10-009

Li Guan (Chemical & Environmental Engineering, The University of Nottingham, Nottingham, United Kingdom), George Zheng Chen

Intact Recovery of Carbon Nanotubes from their Conducting Polymer Composites *via* Selective Fenton-Oxidation

s10-010

Lianhuan Han (Department of Chemistry, Xiamen University, Xiamen, China)

A Novel Processing Method and Simulation Based on Confined Etching Layer Technique

s10-011

Yosuke Imanishi (Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, Japan), Tatsuma Yahara, Tatsuro Haruki, Yuki Orikasa, Yoshiharu Uchimoto

Development of Intermediate Temperature Fuel Cells using Methylcyclohexane Organic Hydride Fuel

s10-012

Ye-Jin Jeong (Department of Environmental Engineering, Sangmyung University, Cheonan, Korea), Chan-Soo Kim, Nam-Jo Jeong, Jin-Soo Park

Effect of Simulated Foulants on Membrane Fouling in Reverse Electrodialysis

s10-013

Babak Khalaghi (Department of Materials Science and Engineering, Norwegian University of Science and Technology, Trondheim, Norway)

Supplying of Methane through Porous Carbon Anodes during Aluminium Electrolysis

s10-014

Jong-Hoon Kim (Electrical Engineering, Power Electronics Lab, Ajou University, Suwon, Korea), Jung-Nam Lee, Chung-Yul Yoo

Toward Cost Effectiveness of Alkaline Water Electrolysis for Hydrogen Economy

s10-015

Javier Llanos (Department of Chemical Engineering, University of Castilla-la Mancha, Ciudad Real, Spain), F. L. Souza, Cristina Sáez, M.V. Lanza, Pablo Cañizares, Manuel Andres Rodrigo

Coupling Wind Turbines and PV Panels to Electrochemical Processes: Treatment of Wastewater and Soil Polluted with Herbicides

s10-016

Paulo Olivi (Departamento de Química, FFCLRP, Universidade de São Paulo, Ribeirão Preto, Brazil), Cláudio Castro

Electrochemical oxidation of Disperse Yellow 3 dye using BDD electrodes

s10-017

Juan Manuel Paz-Garcia (Division of Solid Mechanics, Lund University, Lund, Sweden), Maria Villen-Guzman, Jose M. Rodriguez-Maroto, Cesar Gomez-Lahoz, Matti Ristinmaa, Stephen Hall

Electrokinetic Remediation of Lead-contaminated Carbonate-rich Soil

s10-018

Carlos Ponce de Leon (Faculty of Engineering and the Environment, University of Southampton, Southampton, United Kingdom), I. Ishita, Vanessa M. Vasconcelos, Marcos R.V. Lanza, José L. Nava

Electrochemical degradation of RB-5 dye by anodic oxidation, Electro-Fenton and by combining anodic oxidation-electro-Fenton in a filter-press flow cell

s10-019

Ricardo Salazar (Química de los Materiales, Universidad de Santiago de Chile, Santiago, Chile)

Degradation of Industrial Textile Dye Disperse Red BG by electro-oxidation: Role of Anode, pH and Supporting Electrolyte

s10-020

Onofrio Scialdone (Dipartimento di Ingegneria Chimica, Gestionale, Informatica, Università degli Studi di Palermo, Palermo, Italy), Alessandro Galia, Simona Sabatino

Electrochemical reduction of carbon dioxide to formic acid at tin cathode in divided and undivided cells: Effect of operating parameters

s10-021

Kazuya Takeuchi (Dept of Science of Environment and Mathematical Modeling, Doshisha University, Kyotanabe, Japan), Kenji Kawaguchi, Masatsugu Morimitsu

A Challenge to Synthesize $Bi_2Ir_2O_{7-z}$-based Hybrid Oxide for Oxygen Reduction

s10-022

Po-Chih Tsai (Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei, Taiwan), Bing-Joe Hwang, Wei-Nien Su, Hsin-Fu Deng

Metal Ion Additive Effect on the Morphology of Silicon Etching

s10-023

Elisama Vieira dos Santos (Institute of Chemistry, Federal University of Rio Grande do Norte, Natal, Brazil), Cristina Sáez, Pablo Cañizares, Manuel Andres Rodrigo, Carlos Alberto Martinez-Huitle

Extraction Agents for Removing Petroleum from Soil and Application of Electrolysis to Treat Washing Fluid

s10-024

Elisama Vieira dos Santos (Institute of Chemistry, Federal University of Rio Grande do Norte, Natal, Brazil), Cristina Sáez, Carlos Alberto Martinez-Huitle, Pablo Cañizares, Manuel Andres Rodrigo

Combined soil washing and CDEO for the removal of oxyfluorfen from soils

s10-025

Jiade Wang (Environmental Engineering Center, Zhejiang University of Technology, Haangzhou, China), Mingming Zhou, Guolong Huang, Yongping Gan

Simultaneous Removal of COD and Ammonia Nitrogen using a Novel Electro-oxidation Reactor

s10-026

Masafumi Yasuno (Dept of Science of Environment and Mathematical Modeling, Doshisha University, Kyotanabe, Japan), Kenji Kawaguchi, Masatsugu Morimitsu

Development of Air Electrode Material Comprising Nano-oxide on Ni for MH/Air Secondary Battery

s10-027

Min-Hsin Yeh (School of Materials Science and Engineering, Georgia Institute of Technology, Atlanta, USA), Hengyu Guo, Long Lin, Zhen Wen, Zhaoling Li, Chenguo Hu, Zhong Lin Wang

Integrated Bundle Structure of Rolling Free Standing Triboelectric Nanogenerators and its Applications in Self-powered Copper Collecting Electrochemical system *via* Harvesting Hydropower

s10-028

Chung-Yul Yoo (Advanced Materials & Devices Laboratory, Korea Institute of Energy Research, Daejeon, Korea), Dae Sik Yun, Jong Hoon Joo, Ji Haeng Yu, Jong-Nam Kim, Hyung-Chul Yoon

Solid State Ammonia Synthesis – Present State and Perspective

s10-029

Hsin-Fu Yu (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Jen-Yuan Wang, Min-Chuan Wang, Der-Jun Jan, You-Shiang Lin, Man-kit Leung, Kuo-Chuan Ho

A High Contrast Complementary Electrochromic Device with Sub-second Response Time

s10-030

Antonio de Lucas Consuegra (Chemical Engineering, Castilla La Mancha, Ciudad Real, Spain), Nuria Gutierrez-Guerra, Jesús Gonzalez-Cobos, Juan Carlos Serrano-Ruiz, José Luis Valverde

Electrochemical modification of Ni catalyst with alkali ionic conductors for CO_2 hydrogenation

Symposium 11: New Important Frontiers in Molecular Electrochemistry

Electrochemistry of new organometallic and coordination compounds

s11-001

Masafumi Asahi (Department of Energy and Environment, AIST, Ikeda, Japan), Shin-ichi Yamazaki, Zyun Siroma, Naoko Fujiwara, Tsukasa Nagai, Shinobu Itoh, Tsutomu Ioroi

Substituent Effects on Electrochemical Properties and Oxygen Reduction Reaction Activity of Copper Complexes

s11-002

Zhaohui Huo (Chemistry, Université de Strasbourg, Laboratoire d'Electrochimie, Strasbourg, France)

Original Porphyrin – Polyoxometalate Copolymers: Application for the Photocurrent Generation

s11-003

Klaus Mathwig (Groningen Research Institute of Pharmacy, University of Groningen, Groningen, Netherlands), Hamid Reza Zafarani, Sahana Sarkar, J. Matthäus Speck, Heinrich Lang, Serge Lemay, Oliver G. Schmidt

Potential-Dependent Electrochemical Spectroscopy of Multiferrocenylthiophenes in a Nanogap Sensor

s11-004

Derck Schlettwein (Institute of Applied Physics, Justus-Liebig-University Giessen, Giessen, Germany), Juliane Weissbecker, Andrei Loas, Sergiu M. Gorun

Influence of Decreased Intermolecular Coupling on the Electrochromic Switching-Rate of Substituted Phthalocyanine Thin Films

Electron transfer

s11-005

Carlos Frontana (Investigacion, Centro de Investigacion y Desarrollo Tecnologico en Electroq, Pedro Escobedo, Mexico), Eduardo Martinez-Gonzalez

Electronic Structure Effects on Electron Transfer Controlled Hydrogen Bonding in Substituted Dinitrobenzene Electrogenerated Anions As Receptors for 1,3-Diethylurea

Molecular electrochemistry

s11-006

John Horsley (Chemistry, University of Adelaide, Adelaide, Australia)

The Correlation of Electrochemical Measurements and Molecular Junction Conductance Simulations in β-Strand Peptides

s11-007

Cancan Huang (Department of Chemistry and Biochemistry, University of Bern, Bern, Switzerland)

Tuning of charge transport in single molecule with the chemical and electrochemical methods

s11-008

Miangang Li (Chemistry Department, Xiamen University, Xiamen, China), Li Chen, Yunxin Zhong, Jiawei Yan, Bingwei Mao

Investigation of Electrode Reaction at Well-Defined Electrochemical Interfaces in Ionic Liquids

s11-009

Hsin-Che Lu (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Ting-Hsiang Chang, Chung-Wei Kung, Sheng-Yuan Kao, Kuo-Chuan Ho

The Influence of Alkyl Chain Length of Viologens on the Performance of Their Electochromic Devices

s11-010

Jiri Ludvik (Molecular Electrochemistry, J. Heyrovský Institute of Physical Chemistry ASCR, Prague, Czech Republic), Alan Liska

Structure-controlled Electrochemical Reduction of mono- and di-, nitro or nitroso Calix[4]arenes

s11-011

Suzaliza Mustafar (Chemistry, University of Tokyo, Tokyo, Japan), Kuo-Hui Wu, Kenji Takada, Ryojun Toyoda, Ryota Sakamoto, Hiroshi Nishihara

Synthesis of a π-conjugated porphyrin polymer film on electrode by electrooxidation of 5,15-di(4-aminophenyl)-10,20-diphenylporphyrinatozinc(II)

s11-012

Laurent Ruhlmann (Chemistry, Université de Strasbourg, Laboratoire d'Electrochimie, Strasbourg, France)

Electrosynthesis Processes Based on Oxidative Couplings of Porphyrins for the Formation of Supramolecular Assemblies

s11-013

Li Yang (Department of Engineering Sciences, Uppsala University, Uppsala, Sweden), Xiao Huang, Adolf Gogoll, Maria Strømme, Martin Sjödin

Terephthalate Functionalized Conducting Redox Polymers: Organic Anode Materials for Energy Storage

Redox catalysis

s11-014

Jingyuan Chen (Department of Applied Physics, University of Fukui, Fukui, Japan), Wenwen Li, Koichi Aoki

Catalytic reduction of dioxygen by ferrous hemin over formation of ferrous hemin -O_2 adduct

Symposium 12: Physical Electrochemistry: Spectroscopic, Structural, and Theoretical Investigations of the Electrified Interface

In situ spectroscopy (infrared, Raman, SHG, SFG, X-ray)

s12-001

Jin-Chao Dong (Chemistry, Xiamen University, Xiamen, China), Du-Hong Chen, Yue Li, Jin-Hui Meng, Yang Zhao, Chao-Yu Li, Jian-Feng Li

In-Situ Monitoring the Electrocatalytic Reaction Processes at Platinum Single Crystal Electrode Using SHINERS

s12-002

Kingo Itaya (Frontier Institute for Interdisciplinary Sciences, Tohoku University, Sendai, Japan), Azhagurajan Mukkannan

Application of an Ultra-high Resolution Optical Microscopy ~Imaging of Fast Reactions with Single Atomic Step Resolution~

s12-003

Masaru Kato (Faculty of Environmental Earth Science, Hokkaido University, Sapporo, Japan), Ken'ichi Kimijima, Mari Shibata, Hideo Notsu, Kazuya Ogino, Kiyoshi Inokuma, Narumi Ohta, Hiromitsu Uehara, Yohei Uemura, Nobuhisa Oyaizu, Tadashi Ohba, Satoru Takakusagi, Kiyotaka Asakura, Ichizo Yagi

In Situ X-ray Absorption Fine Structure Spectroscopy of Dinuclear Copper Catalyst under Oxygen Reduction Reaction Conditions

s12-004

Jan Philipp Kollender (Insitute for Chemical Technology of Inorganic Materials, Johannes Kepler University Linz, Linz, Austria), Andrei Ionut Mardare, Achim Walter Hassel

In-situ monitoring of metal dissolution during anodisation of Al and Ti

s12-005

Kamila Lepicka (Department of Physical Chemistry of Supramolecular Complexes, Institute of Physical Chemistry Polish Academy of Sciences, Gdañsk, Poland), Piotr Pieta, Pawel Borowicz, Alexey Popov, Wlodzimierz Kutner

Spectroelectrochemical characterizationof a salicilidene Ni(II) redox conducting polymer for supercapacitors

s12-006

Shawn D. Lin (Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan), Bing-Joe Hwang, Yaw-Terng Chern

In Situ DRIFTS Analysis of SEI formation over Cathodes at Elevated Temperature

s12-007

Kei Murakoshi (Department of Chemistry, Hokkaido University, Sapporo, Japan), Yumi Wakisaka, Mai Takase, Hiro Minamimoto, Satoshi Yasuda

Optical Force Applied to Molecules at Nanogap of Metal Nanodimer

s12-008

Martin Pfaffeneder-Kmen (Department of Physical Chemistry, University of Vienna, Vienna, Austria)

The Redox Behaviour of Graphene Oxide: A Spectroelectrochemical Study

s12-009

Bin Ren (Department of Chemistry, Xiamen University, Xiamen, China), Zhi-Cong Zeng, Sheng-Chao Huang, Teng-Xiang Huang, Jin-Hui Zhong, Mao-Hua Li, Xiang Wang

Electrochemical Tip-Enhanced Raman Spectroscopy (EC-TERS)

s12-010

Manuela Rueda (Department of Physical Chemistry, University of Seville, Seville, Spain), Francisco Prieto, Julia Alvarez-Malmagro, Jose M. Ors

ATR-SEIRAS and Electrochemical Study of the Tautomeric Equilibrium of Adsorbed Thymine on Gold Electrodes

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Ken-ichi Uchida (Catalysis Research Center, Hokkaido University, Sapporo, Japan), Kenta Motobayashi, Kazuya Minami, Naoya Nishi, Tetsuo Sakka, Masatoshi Osawa

Potential-Dependent Structure of $[BMIM]_{(1-x)}Li_x[FSA]$ on a Gold Electrode: A Surface-Enhanced Infrared Study

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De-Yin Wu (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Yuan-Fei Wu, Zhong-Qun Tian

Electrochemical Adsorption and Surface-Enhanced Raman Spectroscopy on Nanostructured Electrodes

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Momo Yaguchi (Section of Interfacial Chemistry, Catalysis Research Center, Sapporo, Japan), Marc T.M. Koper, Masatoshi Osawa

Electrocatalysis of Formic Acid Oxidation on Gold and Platinum: Where Does the Crucial Activity Difference Come From?

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Niloofar Ghanbari (Electrochemical Materials Research, Solar and Hydrogen Energy Research (ZSW), Ulm, Germany), Thomas Waldmann, Peter Axmann, Michael Kasper, Margret Wohlfahrt-Mehrens

Glow Discharge Optical Emission Spectroscopy Used for Film Formation Studies on Graphite Electrodes

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Enrique Herrero (Institute of Electrochemistry, University of Alicante, Alicante, Spain), Carlos Busó-Rogero, Jose Solla-Gullon, Francisco J. Vidal-Iglesias, Juan M. Feliu

Tailoring properties of Pt nanoparticles electrocatalysts towards ethanol oxidation: surface-structure, particles dispersion and pH effect

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Yuta Kitada (IMRAM, Tohoku University, Sendai, Japan), Naoka Nagamura, Ryosuke Taniki, Itaru Honma

X-ray spectroscopic analyses of electronic states on quinone-based cathode materials for Li-ion batteries

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Fei Li (Department of Chemistry, School of Science, Xi'an Jiaotong University, Xi'an, China), Li Ma, Han Zhou, Shuli Xin, Chunhui Xiao, Shujiang Ding

Imaging of electrocatalytical activities of mixed transition metal oxides for oxygen reduction reaction with scanning electrochemical microscopy

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Vladimír Marecek (Department of Biomimetic Electrochemistry, J. Heyrovský Institute of Physical Chemistry of the CAS, Prague, Czech Republic), Oksana Josypcuk, Karel Holub

Noise and AC impedance analysis of ion transfer kinetics at the micro liquid/liquid interface

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Armando Pombeiro (Centro de Quimica Estrutural, Instituto Superior Tecnico, Lisboa, Portugal), Anirban Karmakar, Luísa Martins, M. Fátima C. Guedes da Silva, Susanta Hazra

Electrochemical behaviour of new 3-aminopyrazine-2-carboxylate Fe(III)-complexes

s12-020

Yuma Takeuchi (Department of Chemistry, Faculty of Science, Hokkaido University, Sapporo, Japan), Kohei Uosaki, Kei Murakoshi, Katsuyoshi Ikeda

Nanoparticle-assisted electrochemical formation of ferrocenethiol-monolayer nanodots

s12-021

De-Yin Wu (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Ran Pang, Zhong-Qun Tian

Adsorption and Photocatalytic Hydrogen Evolution Reactions of Water on Silver and Gold Cathodes: DFT and SERS Study

Structural studies (XRD, STM, AFM)

s12-022

Xavier Feaugas (LaSIE UMR CNRS 7356, University of La Rochelle, La Rochelle, France)

Potentiostatic pulse technique to investigate the hydrogen diffusion and trapping into subsurface of nickel single crystal (100)

s12-023

Yi-Hsien Lu (Institute of Physics, Academia Sinica, Taipei, Taiwan), Chih-Wen Yang, Chung-Kai Fang, Hsien-Chen Ko, Ing-Shouh Hwang

Observation of Gas Structures at the Interface between a Hydrophobic Electrode and Water Using Atomic Force Microscopy

s12-024

Jan Macak (Center of Materials and Nanotechnologies, University of Pardubice, Pardubice, Czech Republic), Petr Knotek, Hanna Sopha, Milos Krbal, Jan Subrt, Mariana Klementova

Self-Organized TiO_2 Nanotubes: Influence of Ti substrates

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D. William A. Morton (School of Electronic and Electrical Engineering, University of Leeds, Leeds, United Kingdom), A. Giles Davies, Christoph Walti

Electrochemical interrogation of the structure of self-assembled monolayers on nanofabricated metallic nanowires

Theoretical models

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Junxiang Chen (Department of Chemistry, Wuhan University, Wuhan, China)

On the origin of the greatly different kinetics of the hydrogen electrode reactions on Pt in acid and alkaline media

s12-027

Yu-cheng Chuang (Department of Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan), Ping-chun Tsai, Shih-kang Lin

Ab initio lattice stability of the $x\mathrm{Li_2MnO_3}\bullet(1\text{-}x)\mathrm{Li(Ni_{1/3}Mn_{1/3}Co_{1/3})O_2}$ composite-layered cathode materials for lithium-ion batteries

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Oksana Limanovskaya (Urals Federal University, Ekaterinburg, Russia), Valentin Nekrasov, Andrey Suzdaltsev, Andrey Khramov, Yuriy Zaikov

Modeling of quasi-stationary process at the Platinum anode in the KF–NaF–AlF3–Al2O3

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Electrodes materials

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Abdullah Al Mayouf (Chemistry, King Saud University, Riyadh, Saudi Arabia), Mohamed Ali Ghanem, Maged Naji Shaddad, Prabhakarn Arunachalam, Mansour Al Hoshan, Mark T. Weller, Frank Marken

Photoelectrochemical characterization of ZnLaTaON based electrodes for water oxidation reaction

Symposium 14: Modeling, Design and Characterization of Nanostructured, Electroactive and Multifunctional Materials

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Katarzyna Krukiewicz (Department of Physical Chemistry and Technology of Polymers, Silesian University of Technology, Gliwice, Poland), John Bulmer, Dawid Janas, Krzysztof Koziol, Jerzy Zak

Nucleation and Growth of PEDOT on the Surface of Horizontally Aligned Carbon Nanotubes

Electroactive materials

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Rajendranath Kirankumar (Medicinal and Applied Chemistry, Kaohsiung Medical University, Kaohsiung, Taiwan)

Electropolymerized Carbazole-Containing Ionic Liquid

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Jing-Ting Liao (Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan), Sin-Syu Liao

Electrical Characteristics of Raw Si-based Powders for Li-ion Electrode by Kelvin Probe Force Microscopy (KPFM) and Electrostatic Force Microscopy (EFM)

s14-004

Mikhail A. Vorotyntsev (Chemistry Department, D. Mendeleev University of Chemical Technology of Russia, Moscow, Russia), Dmitry V. Konev, Olga I. Istakova, Dinara K. Khayrullina

Study of Effect of Various Solvents on the Electropolymerization Process of Mg(II) Porphine and Electroactive Properties of Polyporphine Films

Electrocatalysis

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Li Li (School of Chemistry and Chemical Engineering, Chongqing University, Chongqing, China), Yao Nie, Siguo Chen, Wei Ding, Xueqiang Qi, Feng Shi, Zidong Wei

Insight into the effect of oxygen vacancy concentration on the catalytic performance of MnO_2

Functional and nanostructured materials

s14-006

Jung Sang Cho (Department of Materials Science and Engineering, Korea University, Seoul , Korea)

Advanced Anode Material with Bubble-Nanorod-Structured Metal Oxide-Carbon Composite Nanofibers

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Jooyoun Jeong (Department of Chemical Engineering, Pohang University of Science and Technology (POSTECH), Pohang, Korea), Seongbeen Kim, Yongchai Kwon

Mesocellular Carbon based Electrodes for High-Performance Vanadium Redox Flow Battery

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Joonhee Kang (Energy systems Engineering, DGIST, Daegu, Korea), Byungchan Han

First principles study of thermal stability of $LiNiO_2$ materials coated with ultrathin amorphous Al_2O_3 layers

s14-009

Yann Leroux (Institut des Sciences Chimiques de Rennes, CNRS - Université de Rennes 1, Rennes Cedex, France), Philippe Hapiot

Nanostructured Monolayers on Carbon Substrates

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Aiping Liu (Center for Optoelectronics Materials and Devices, Zhejiang Sci-Tech University, Hangzhou, China)

GO/rGO Microelectrode Arrays with Adjustable Electrochemical Activity and Biocompatibility for Highly Sensitive Detection of Hydrogen Peroxide Released by Living Cells

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Hiro Minamimoto (Department of Applied Chemistry, Graduate School of Engineering, Osaka University, Osaka, Japan), Haruyasu Irie, Taro Uematsu, Tetsuya Tsuda, Akihito Imanishi, Shu Seki, Susumu Kuwabata

Fabrication of 3D Micro/Nano-Polymer and Metal Structures in Room-Temperature Ionic Liquid by Electron Beam Irradiation

s14-012

Herenilton Oliveira (Chemistry, Universidade de São Paulo, Ribeirão Preto, Brazil), Laura Novais, Raíssa Camargo, Paulo Noronha Filho

Glassy Polymeric Carbon/Fe_xC_y and Carbon/Co_xC_y Nanocomposites: Electrochemical and Magnetic Properties

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Emmanuel Rocca (Institut Jean Lamour UMR CNRS, Université de Lorraine , Vandoeuvre Les Nancy, France), Hadri Faiz, François Mirambet, Solenn Reguer

Electrochemical properties of nano functionalized iron oxyhydroxide: strategies for the corrosion protection of rusted steels

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Jinju Song (Materials Science and Engineering, Chonnam National University, Gwangju, Korea), Jihyeon Gim, Sungjin Kim, Jeonggeun Jo, Joseph Paul Baboo, Seokhun Kim, Sohyun Park, Dongyun Kim

Pyro-Synthesis of Functional Nanocrystals

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Lu-Hsiang Yin (Chemical Engineering, National Taiwan University, Taipei, Taiwan), Sheng-Yuan Kao, Chung-Wei Kung, Ting-Hsiang Chang, Kuo-Chuan Ho

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Na Tian (Department of Chemistry, Xiamen University, Xiamen, China), Jia-Huan Du, Shi-Gang Sun

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Laurence Hardwick (Chemistry, University of Liverpool, Liverpool, United Kingdom), Scott Lewis, Ming Liu, Linjiang Chen, Iain Aldous, Marc Little, Sam Chong, Andy Cooper

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C. Y. Ho (Mechanical Engineering, Hwa Hsia University of Technology, New Taipei, Taiwan), B.C. Chen, M. Y. Wen, Y. H. Tsai, H. H. Ku

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Hongjiao Li (Chemistry Department, Technische Universität München, Munich, Germany), Yunchang Liang, Wenbo Ju, Marian D. Rötzer, Florian F. Schweinberger, Ulrich Stimming, Ueli Heiz, Oliver Schneider

Activity and Stability of Pt Clusters supported on Au(111) for Electro-oxidation of Formic Acid

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Shuo Liu (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China)

Electrochemical Reaction of Single Nanoparticle

s14-021

Mesfin Haile Mamme (Research Group Electrochemical and Surface Engineering, Vrije Universiteit Brussel, Brussels, Belgium), El Amine Mernissi Cherigui, Olga Dolgikh, Jon Ustarroz, Herman Terryn, Johan Deconinck

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Chien-Hong Lin (Chemistry Division, Institute of Nuclear Energy Research, Longtan, Taiwan)

Amino-Silica Modified Nafion Membrane for Vanadium Redox Flow Battery

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Hung-Lung Chou (Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei, Taiwan)

Combined Experiment and DFT Investigations of Catalytic Activities into Pt-based Electrocatalysts for Fuel Cell Applications

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Alejandro A. Franco (Laboratoire de Réactivité et Chimie de Solides (LRCS), Université de Picardie Jules Verne & CNRS, Amiens, France), Kan-Hao Xue, Claude Guery, Patrik Johansson, Mathieu Morcrette

A flexible framework for solving transport in lithium sulfur batteries

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Hyung-Kyu Lim (Graduate School of EEWS, Korea Advanced Institute of Science and Technology, Daejeon, Korea), Hyungjun Kim

Discover a Role of Ionic-Liquid in Electrochemical CO_2 Reduction by Using QM/MM Method

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Yinghui Yin (Laboratoire de Réactivité et Chimie des Solides (LRCS), Université de Picardie Jules Verne , Amiens, France), Matias A. Quiroga, Alejandro A. Franco

Multiparadigm Simulation of Electrochemical Energy Devices: The Fuel Cell Membrane Degradation

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Hye Youn Han (Chemistry, Kyungpook National University, Daegu, Korea), Farhana Sharmin Diba, Hye Jin Lee

Electrochemical Studies at an Interface between Two Immiscible Electrolyte Solutions for CO_2 Reduction

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Changbin Im (Ertl Center for Electrochemistry and Catalysis, Gwangju Institute of Science and Technology, Gwangju, Korea), Jae Kwang Lee, Jaeyoung Lee

Synthesis of High Ionic Conductive $L_7La_3Z_2O_{12}$ Solid Electrolyte by a Sol-gel Process

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Mei-Jywan Syu (Chemical Engineering, National Cheng Kung University, Tainan, Taiwan), Yao-Wei Hsu

On the Synthesis of Zinc-Tetrapyridylporphine Complex for the Electrochemical Recognition of Bilirubin in Serum

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Yu Cheng (Dept. Biomedical Engineering, National Cheng Kung University, Tainan, Taiwan)

A Rapid Detection of Biomarkers Applied by Electrochemical Biosensor Accelerated with an AC Electrokinetic Manipulation

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Flavio Maran (Chemistry, University of Padova, Padova, Italy), Anna Pellattiero, Federico Polo, Giuseppe Toffoli, Aline S. C. Fabricio, Massimo Gion

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Manuela Rueda (Department of Physical Chemistry, University of Seville, Seville, Spain), Julia Alvarez-Malmagro, Francisco Prieto

DNA Bases Co-Adsorption at Gold Electrodes. An *in-situ* FT-IR Spectro-Electrochemical Study

Redox therapy, drug carriers

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Marilia Goulart (Instituto de Química e Biotecnologia, Universidade Federal de Alagoas, Maceio, Brazil), Thaissa Silva, Camila Vasconcelos, Fabricia Ferreira, Chaquip Netto, Paulo Costa

The Yin-Yang Nature of Biologically Active Pterocarpanquinones: ROS Release and Alkylating Ability also Revealed by Electrochemistry

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Katarzyna Krukiewicz (Department of Physical Chemistry and Technology of Polymers, Silesian University of Technology, Gliwice, Poland), Tomasz Jarosz, Barbara Bednarczyk-Cwynar, Piotr Ruszkowski, Jerzy Zak

Local Delivery of Biologically Active Compounds Based on Conjugated Polymer Matrices

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Hiromi Yoda (Graduate School of Engineering, Kanagawa Institute of Technology, Atsugi, Japan), Ayumi Koike-Takeshita

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Patrick Faubert (Department of Microsystems Engineering – IMTEK, Albert-Ludwigs-University, Freiburg, Germany), Ivan Kondov, Claas Müller, Holger Reinecke, Peter Smyrek, Johannes Pröll, Wilhelm Pfleging

Analysis of the Surface Structure and Catalytic Behavior of Cr-modified Ni Surfaces for Fuel Cells

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Tzu-Ho Wu (Chemistry, University of Liverpool, Liverpool, United Kingdom), Jia-Cing Chen, Chun-Tsung Hsu, Laurence Hardwick

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Ju-Hsiang Cheng (Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei City, Taiwan), Ming-Hsien Lin, Chun-Yi Wu, Chun-Chieh Wang, Yen-Fang Song, Bing-Joe Hwang

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Yi-Ting Hsieh (Department of Chemistry, National Cheng Kung University, Tainan, Taiwan)

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Chen-Yuan Lu (Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan), Yu-Lun Cheng

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Nicolas Jäckel (Energy Materials, INM- Leibnitz-Institute for New Materials, Saarbrücken, Germany), Nethanel Shpigel, Sergey Sigalov, Mikhael D. Levi, Daniel Weingarth, Doron Aurbach, Volker Presser

In-situ monitoring of elastic properties of common binders in Lithium ion batteries *via* electrochemical quartz microbalance with dissipation and dilatometry

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Keiji Shimoda (Office of Society-Academia Collaboration for Innovation, Kyoto University, Uji, Japan), Miwa Murakami, Hideyuki Komatsu, Hajime Arai, Yoshiharu Uchimoto, Zempachi Ogumi

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Arturo-de-Jesus García-Mendoza (Analytical Chemistry, Universidad Nacional Autonoma de Mexico, Mexico City, Mexico), Adrián De-Santiago-Zárate, José-Alejandro Baeza-Reyes

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Arturo-de-Jesus García-Mendoza (Analytical Chemistry, Universidad Nacional Autonoma de Mexico, Mexico City, Mexico), Julio-César Aguilar-Cordero

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Abdulkadir Levent (Analytical Chemistry, Batman University, Batman, Turkey)

Simultaneous Determination of Ascorbic Acid, Epinephrine and Uric Acid by Differential Pulse Voltammetry on a Disposable Pencil Graphite Electrode

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Abdulkadir Levent (Analytical Chemistry, Batman University, Batman, Turkey)

Simultaneous Determination of Ascorbic acid, Norepinephrine and Uric acid by Differential Pulse Voltammetry on a Disposable Pencil Graphite Electrode in the Pharmaceutical Formulations and Human Urine Samples

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Adeline Loo (Division of Chemistry & Biological Chemistry, SPMS, NTU, Nanyang Technological University, Singapore, Singapore), Alessandra Bonanni, Adriano Ambrosi, Martin Pumera

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Masakuni Takahashi (Chemical Engineering, Tokyo National College of Technology, Hachiouji, Japan), Hidenobu Shiroishi, Genichiro Nakamura, Tatsuhiro Okada

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Wei Zhe Teo (Chemistry & Biological Chemistry, Nanyang Technological University, Singapore, Singapore), Martin Pumera

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Hiroyuki Ueda (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Katsuhiko Nishiyama, Soichiro Yoshimoto

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Colin Hong An Wong (Division of Chemistry & Biological Chemistry, SPMS, NTU, Nanyang Technological University, Singapore, Singapore), Zdenek Sofer, Marie Kubešová, Jan Kucera, Stanislava Matejková, Martin Pumera

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Guan Xiao-Rui (China University of Petroleum, Qingdao, China), Zhang Dalei, Jin You-hai, Wang Jian-jun

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Seung-Ryong Kwon (Chemistry, Seoul National University, Seoul, Korea), Sung Yul Lim, Taek Dong Chung

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Pu-Wei Wu (Materials Science and Engineering, National Chiao Tung University, Hsinchu, Taiwan), Chai-Wei Chung, Yong-Min Chen, Po-Chun Chen

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Hao Huang (Department of Engineering Sciences, Uppsala University, Uppsala, Sweden), Christoffer Karlsson, Rikard Emanuelsson, Maria Strømme, Adolf Gogoll, Martin Sjödin

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Moon-Sung Kang (Department of Environmental Engineering, Sangmyung University , Cheonan, Korea), Do-Hyeong Kim, Eun-Hye Jang, Yu-Jin Kim, Jin-Soo Park

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Zhenhai Liang (College of Chemistry and Chemical Engineering, Taiyuan University of Technology, Taiyuan, China), Xian Liu, Xuan Jian, Huimin Yang

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Yingbin Lin (College of Physis and Energy, Fujian Normal University, Fuzhou, China), Zhigao Huang

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Shohei Suzuki (Department of Life Science and Sustainable Chemistry, Faculty of Engineering, Tokyo Polytechnic University, Atsugi, Kanagawa, Japan), Masaru Ogasawara, Noritoshi Nanbu

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Jin Cui (MESA+ Institute for Nanotechnology, University of Twente, Enschede, Netherlands), Klaus Mathwig, Serge Lemay

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Alex Yong Sheng Eng (Chemistry and Biological Chemistry, Nanyang Technological University, Singapore, Singapore), Adriano Ambrosi, Zdenek Sofer, Petr Simek, Martin Pumera

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Robert Hillman (Department of Chemistry, University of Leicester, Leicester, United Kingdom), Rachel Sapstead, Natalie Corden, Emma Palin

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Jia-Lin Jhan (Department of Chemical Engineering and Materials Science, Yuan Ze University, Taoyang, Taiwan), Leo Chau-Kuang Liau, Po-Chin Tseng

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Masahiro Kobayashi (Chemical Engineering, Tokyo National College of Technology, Hachiouji, Japan), Hidenobu Shiroishi, Masahiko Kijima, Yumi Tanaka, Jun Kuwano

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Hsueh Ming Liu (Chemistry, National Central University, Taoyuan City, Taiwan), Cheng-Gang Wu, Diganta Saikia, Hsien-Ming Kao

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Toshiyuki Matsunaga (Academia Collaboration for Innovation, Kyoto University, Kyoto, Japan), Hideyuki Komatsu, Keiji Shimoda, Taketoshi Minato, Masao Yonemura, Takashi Kamiyama, Shunsuke Kobayashi, Takeharu Koto, Tsukasa Hirayama, Yuichi Ikuhara, Hajime Arai, Yoshio Ukyo, Yoshiharu Uchimoto, Zempachi Ogumi

Significant cation mixing in the transition-metal layer of Li_2MnO_3

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Masaru Ogasawara (Department of Life Science and Sustainable Chemistry, Faculty of Engineering, Tokyo Polytechnic University, Atsugi, Kanagawa, Japan), Shouhei Suzuki, Noritoshi Nanbu

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Kayato Ooya (Chemical Engineering, Tokyo National College of Technology, Hachiouji, Japan), Hidenobu Shiroishi, Morihiro Saito, Yumi Tanaka

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Gha-Young Kim (Nuclear Fuel Cycle Process Development, Korea Atomic Energy Research Institute, Daejeon, Korea), Jisun Shin, Si-Hyung Kim, Do-Hee Ahn, Seungwoo Paek

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Do-Hyeong Kim (Department of Environmental Engineering, Sangmyung University, Cheonan, Korea), Eun-Hye Jang, Jin-Soo Park, Moon-Sung Kang

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Do-Hyeong Kim (Department of Environmental Engineering, Sangmyung University, Cheonan, Korea), Yu-Jin Kim, Jin-Soo Park, Moon-Sung Kang

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Jooyul Lee (Electrochemistry Department, Korea Institute of Materials Science, Changwon, Korea), Yongsoo Jeong

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Jau-Kai Wang (Applied Chemistry and Material Science, Fooyin University, Kaohsiung, Taiwan), Yan-Ru Wang, Ying-Ting Wang

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Jen-Yuan Wang (Physics Division, Institute of Nuclear Energy Research, Taoyuan, Taiwan), Min-Chuan Wang, Hsin-Fu Yu, Der-Jun Jan, Kuo-Chuan Ho

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B.C. Chen (Chinese Medicine, Buddhist Dalin Tzu Chi General Hospital, Chiayi, Taiwan), C. Y. Ho, H. H. Ku, M. Y. Wen, W. C. Wu, Y. H. Tsai

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Keiichi Nishihata (Advanced Engineering Faculty, National Institute of Technology, Wakayama College, Wakayama, Japan), Katsuhiko Tsunashima, Masahiko Matsumiya

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The International Society of Electrochemistry

The International Society of Electrochemistry (ISE) was founded in 1949 by leading European and American electrochemists to serve the growing needs of electrochemistry. At that time only a handful of scientists were members of the society – known as CITCE (Comité International de Thermodynamique et Cinétique Electrochimiques). Since then ISE has evolved and comprises now more than 3500 individual members, from 72 countries, and is organized in 44 Regional Sections. Both industrialised and developing countries from all five continents are represented. ISE is, therefore, a truly world-wide organisation. ISE is a non-profit-making organisation with its seat in Lausanne, Switzerland.

The International Society of Electrochemistry (ISE) is devoted to the advancement of electrochemical science and technology through the promotion of international contacts and the dissemination of scientific knowledge. For this ISE organises Annual and Topical Meetings which are held in different countries each year and which cover a wide range of current topics in fundamental and applied electrochemistry. The activities of ISE include the sponsoring of regional meetings, and of special meetings of limited participation devoted to particular subjects. A scientific journal, Electrochimica Acta, is edited by ISE and supplied to its members at a special rate. Individuals, non-profit organisations, industrial companies and learned societies may become members of ISE. The administration of ISE is done by an Executive Committee, periodically elected by all members. The Regional Representatives together with the Division Officers form the ISE Council which advises the Executive Committee. The scientific activities of ISE are grouped into Scientific Divisions. They are organised and co-ordinated by the Committee of Division Officers headed by the President Elect. Upon joining ISE each member indicates his/her divisional interests.

The history of the International Society of Electrochemistry (ISE) is described in a series of articles published in Volume 45 of Electrochimica Acta and available on the web site of the Society (http://www.ise-online.org/geninfo/history.php).

Why you should join ISE

ISE membership provides a number of advantages which can be summarized as follows:

- Individual members can get reduced subscription rates for the following journals:
  Electrochimica Acta (online),
  Journal of Electroanalytical Chemistry (online),
  Electrochemistry Communications (online),
  Bioelectrochemistry (online),
  Journal of Power Sources (online),
  Journal of Applied Electrochemistry (print),
  Electroanalysis (print),
  Journal of Solid State Electrochemistry (print) for personal use.
  There is a also a Discounted Package available consisting of the Journal of Electroanalytical Chemistry, Electrochemistry Communications, and Bioelectrochemistry (online).
- Reduced registration fees at ISE Meetings
- Access to the "members restricted area" of the ISE website
- Access to the full membership directory with all members addresses

How to become an ISE member

Becoming an ISE member is simple: you will find a Membership Application Form on the Society web site (at the address: http://members.ise-online.org/members/new_members.php), which you can fill in and submit online. In the application form you will have to select up to three Divisions and indicate two sponsoring ISE members. Should it be difficult for you finding these sponsors, please write to the Executive Secretary of the Society Dr. M. Musiani, e-mail: m.musiani@ieni.cnr.it.

Membership fees

Individual yearly membership fees are 40 EUR for members above 30 years of age, and 10 EUR for members of age 30 or less and for Emeritus members.

ISE Organization

Executive Committee

The Executive Committee is entrusted with the management of the Society.

ISE Office

The ISE Office performs all administrative tasks related to the operation of the Society. It is located in Switzerland, and managed by an Executive Secretary.
The ISE Office serves as the primary contact for members and non-members.

Division Officers

The scientific activities of ISE are grouped into seven Scientific Divisions and a New Topics Committee. The divisions are headed by a Chairperson assisted by a Past Chair, a Chair Elect and two Vice Chairs. Their role is to promote and represent the scientific interests of the division and its members, for example through contributing to the organization of Annual, Topical and other Society meetings.

Regional Representatives

In each country or group of countries having fifteen members or more, a national or regional section of ISE may be formed. Each section has a Regional Representative.

Council

The ISE Council is an Advisory Body. The voting members of the Council consist of three Officers from each Division and all the Regional Representatives. All persons constituing the Council are elected by the members of the Society.

Scientific Meetings Committee

The Scientific Meetings Committee plans and oversees the organization and sponsorship of scientific meetings within the broad field of electrochemistry.

Fellows Nominating Committee

The Fellows Nominating Committee is a standing committee which proposes names to the Executive Committee for the title of ISE Fellow. It is also responsible for identifying candidates for honorary membership.

Publications Committee

The Publication Committee, a standing committee of ISE, acts as an advisory board to the Executive Committee on publication matters.

ISE Executive Committee

President

Christian Amatore, Paris, France (2015-2016)
Representation of ISE. Chairperson of Executive Committee, Council and General Assembly

President Elect

Philip N. Bartlett, Southampton (2015-2016)
Chairperson of Committee of Division Officers. Coordination of scientific program of future Annual Meetings, supervision of Division Officers' activities

Immediate Past President

Hasuck Kim, Seoul, Korea (2015-2016)
Chairperson of Executive Committee in the absence of the President

Vice Presidents

Justin Gooding, Sidney, Australia (2013-2015)
Responsible for relations with other Societies

Plamen Atanassov, Albuquerque, NM, USA (2015-2017)
Responsible for Corporate and Corporate Sustaining Members

Katharina Krischer, München, Germany (2015-2017)
Responsible for Educational Activities in ISE

Yunny Meas, CIDETEQ, Querétaro, Mexico (2014-2016)
Responsible for Regional Sections

Secretary General

Manuela Rueda (2015-2017)
General tasks
Ensuring continuity and efficiency of scientific policy. Coordination of tasks of Vice Presidents. Identification of new developments in electrochemistry and possible new scientific and nonscientific activities. Scientific matters not handled by the President or President Elect.
Tasks in collaboration with ISE Office
Ensuring that constitution, bylaws, guidelines, schedules etc. are observed. Preparation of Annual Reports. Collection of information for newsletters and coordination of actions.
Annual and Topical ISE Meetings
Coordination of Meetings (location, time, topics). Representative of Executive Committee and advisor to Local Organising Committees for nonscientific matters (location, facilities, control of financial planning, schedule, publicity).

Treasurer

Bernard Tribollet, Paris, France (2014-2016)
Responsible for the administration and the management of the assets and property of the Society, preparation of budgets and financial reports, financial planning, investment policy, supervision of financial matters of Annual and Topical ISE Meetings.

Executive Secretary

Marco Musiani, Padova, Italy (2014-2018)
Responsible for maintaining the ISE calendar, assisting with organizing the business and financial arrangements for Annual and Topical Meetings, organising committee appointments, assisting the Secretary General with Society elections, recruiting new members, and co-ordinating Executive Committee meetings. Drafts ISE documents, acts as web page editor, maintains ISE archives and records, and serves as the contact person for members (particularly at ISE meetings).

Scientific Divisions of ISE

Division 1 – ANALYTICAL ELECTROCHEMISTRY

Experimental and theoretical aspects of the analytical process in which electrochemistry has a role, including sample collection / processing, separation, and species identification and quantitation.
Chair: F. Bedioui, Past Chair: A. Downard, Chair Elect: D. Mandler, Vice-Chairs: P. Baker and J. Pingarron

Division 2 – BIOELECTROCHEMISTRY

Aspects of electrochemistry and electroanalysis characterizing biological processes at the molecular level and relevant to the mechanisms of biological regulation of cells.
Chair: R. Bilewicz, Past Chair: W. Shin, Chair Elect: F. Lisdat, Vice-Chairs: D. Arrigan and E. Lojou

Division 3 – ELECTROCHEMICAL ENERGY CONVERSION AND STORAGE

Experimental and theoretical aspects of electrochemistry in which the goal is the interconversion of energy between different forms or the storage of energy, including the processes themselves and materials used for these purposes.
Chair: S. Passerini, Past Chair: D. Jones, Chair Elect: R. Kostecki, Vice-Chairs: F. Soavi and H. Uchida

Division 4 – ELECTROCHEMICAL MATERIALS SCIENCE

Aspects of materials science in which electrochemistry is part of the synthesis, processing, surface treatment, corrosion, characterization or modeling of new or existing materials, or in which electrochemistry is the user of such materials.
Chair: Chair: S. Brankovic, Past Chair: M. Ryan, Chair Elect: G. Zangari, Vice-Chairs: N. Birbilis and M. Vorotyntsev

Division 5 – ELECTROCHEMICAL PROCESS ENGINEERING AND TECHNOLOGY

Experimental and theoretical aspects and applications of electrochemistry in which engineering issues play a significant role, including scale-up and reactor design.
Chair: J. Peralta-Hernandez, Past Chair: F. Lapicque, Chair Elect: K. Bouzek, Vice-Chairs: S. Mitsushima and M. Rodrigo

Division 6 – MOLECULAR ELECTROCHEMISTRY

Structural and mechanistic aspects of electrode processes of inorganic, metallorganic and organic substances; synthetic applications.
Chair: F. Paolucci, Past Chair: M. Goulart, Chair Elect: O. Buriez, Vice-Chairs: C. Frontana and G. Xu

Division 7 – PHYSICAL ELECTROCHEMISTRY

Experimental, theoretical and computational aspects of electrochemistry, alone or in conjunction with other methods, relevant to interfaces and conductive media; this shall include physicochemical nature, structure and dynamics from the molecular to the macroscopic level.
Chair: A. Russell, Past Chair: M. Eikerling, Chair Elect: A. Gewirth, Vice-Chairs: M. Arenz and Y. Chen

New Topics Committee

The New Topics Committee identifies interesting and relevant scientific and technological subjects not covered by the ISE Divisions. It has tasks similar to those of a Division, except that it may have several and changing technical priorities.
Chair: P. Unwin, Past Chair: T. Jacob, Chair-Elect: N.J. Tao

Regional Representatives

Argentina:	A.E. Bolzan	2015-2017	2nd term
Australia-NZealand:	C. Hogan	2015-2017	1st term
Austria:	W. Kautek	2013-2015	2nd term
Belgium:	C. Buess-Herman	2013-2015	2nd term
Brazil:	H. Varela	2015-2017	1st term
Bulgaria	E. Slavcheva	2015-2017	1st term
Canada:	G. Jerkiewicz	2013-2015	1st term
Caribbean Region:	J. Calderon	2014-2016	1st term
Chile:	R. Salazar	2013-2015	1st term
China:	S.G. Sun	2013-2015	1st term
Croatia:	M. Kraljic-Rokovic	2015-2017	1st term
Czech Republic	M. Hromadova	2013-2015	2nd term
Denmark:	Qingfeng Li	2015-2017	2nd term
Estonia:	E. Härk	2014-2016	1st term
Finland:	B. Wilson	2014-2016	1st term
France:	N. Pébère	2014-2016	2nd term
Germany:	H. Baltruschat	2015-2017	2nd term
Greece:	S. Bebelis	2013-2015	2nd term
Hungary:	L. Peter	2014-2016	2nd term
India:	S.K. Aggarwal	2014-2016	1st term
Iran:	M.A.A. Ensafi	2013-2015	1st term
Ireland:	E. Marsili	2013-2015	2nd term
Israel:	N. Eliaz	2015-2017	1st term
Italy:	S. Cattarin	2013-2015	1st term
Japan:	S. Kuwabata	2014-2016	1st term
Korea:	I.-H. Yeo	2013-2015	2nd term
Lithuania:	R. Pauliukaite	2014-2016	1st term
Mexico:	C. Frontana	2015-2017	2nd term
Netherlands:	M. Van Brussel	2013-2015	2nd term
Norway:	S. Sunde	2013-2015	2nd term
Poland:	M. Skompska	2013-2015	1st term
Portugal:	J.M. Palma Correia	2015-2017	2nd term
Romania:	M. Ungureanu	2015-2017	1st term
Russia:	M. Vorotyntsev	2013-2015	1st term
Serbia:	A. Dekanski	2014-2016	1st term
South Africa:	K. Ozoemena	2013-2015	2nd term
Spain:	E. Herrero	2014-2016	1st term
Sweden:	F. Björefors	2013-2015	2nd term
Switzerland:	E. Bakker	2013-2015	1st term
Taiwan:	B.J. Hwang	2015-2017	1st term
Turkey:	M.S. Yazici	2014-2016	1st term
Ukraine:	O. Linyucheva	2013-2015	2nd term
United Kingdom:	T. Albrecht	2014-2016	2nd term
USA:	G. Botte	2015-2017	1st term

Corporate and Corporate Sustaining Members of ISE

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Crown Battery Manufacturing
DropSens, S.L.
Gamry Instruments
Google
Metrohm Autolab BV
PalmSens BV
Permascand AB
Sensolytics GmbH
Scribner Associates, Inc.
Tanaka Kikinzoku Kogyo K.K.
Zahner-elektrik GmbH & Co KG

Central Electrochemical Research Institute
Paul Scherrer Institute, Switzerland
Sokolsky Institute of Organic Catalysis and Electrochemistry, Russia

Co-operation with other Societies

ISE is an Associated Organization of IUPAC and has co-operation agreements with:

•Bioelectrochemical Society (The)
•Chinese Society of Electrochemistry
•Deutsche Gesellschaft für Galvano- und Oberflächentechnik (DGO)
•Electrochemical Division of the Italian Chemical Society
•Electrochemical Society (The)
•Electrochemical Society of Japan
•Electrochemistry and Electroanalytical Division of the Brazilian Chemical Society
•Electrochemistry Group of the French Society of Chemistry
•European Federation of Corrosion
•Fachgruppe Angewandte Elektrochemie der Gesellschaft Deutscher Chemiker (Section Applied Electrochemistry of the Society of German Chemists)
•Korean Electrochemical Society
•Mexican Electrochemical Society
•Royal Society of Chemistry (The)
•Sociedad Iberoamericana de Electroquimica
•Society for Electroanalytical Chemistry (The)

ISE Honorary Members

Honorary Members are appointed by the Executive Committee, after consultation with the Council, primarily in recognition of their contribution to ISE. The total number at any time is limited to ten.

The first Honorary Member of ISE, appointed in the year 2003, was **Otmar Dossenbach**, Treasurer of the Society for 21 years (1980-2000) and Executive Secretary for 2 years (2001-2002).
Two new Honorary Members were appointed in the year 2004: **Roger Parsons** and **Sergio Trasatti**, former Presidents of the Society.
Three Honorary Members were appointed in the year 2005: **Ron Armstrong**, former Editor-in-Chief of Electrochimica Acta for 18 years, **Elton Cairns** and **Dieter Landolt**, former Presidents of the Society,
One Honorary Members was appointed in the year 2011: **Sharon Roscoe**, former Secretary General of the Society.

ISE Fellows

In recognition of their scientific or technical contributions to electrochemistry, the Society may confer on individual members the distinction of ISE Fellowship. Such ISE Fellows are appointed by the Executive Committee after consultation with the Council. The appointment does not carry with it automatic life-time ISE membership.

The present Fellows of ISE are:

H. Abruña
R. Adzic
A. Aldaz
R. Alkire
Ph. Alongue
C. Amatore
D. Aurbach
P. Bartlett
R. J. Behm
A. Bond
E. Cairns
A. Chen
C. Comninellis
R. Compton
S. Cosnier
P. Delahay
C.Fan
W.R. Fawcett
J. Feliu
C. Gabrielli
E. Gileadi
H. Girault
L. Gorton
R. Guidelli
P. Hapiot
J. Heinze
R. Hillman
B.J. Hwang
G. Inzelt
K. Itaya
Y. Ito
H. Ju
A. Jutand
T. Kakiuchi
A. Karyakin
H. Kim
M. Koper
A. Kornyshev
C. Lamy
O. Lev
J. Lipkowski
D. Macdonald
D. Mandler
P. Marcus
R.A. Marcus
N. Markovic
J. McBreen
R. Nichols
T. Osaka
M. Osawa
Z. Samec
R. Savinell
E. Savinova
D. Schiffrin
W. Schmickler
P. Schmuki
F. Scholz
W. Schuhmann
B. Scrosati
A. Shukla
U. Stimming
S. Sun
Z. Tian
J. Ulstrup
P. Unwin
K. Uosaki
C. Vayenas
M. Watanabe
A. Wieckowski
G. Wilson
M. Winter
J. Zagal
J. Zhang

Society Awards

Electrochimica Acta Gold Medal

The Electrochimica Acta Gold Medal may be awarded every two years to the person judged to have made the most significant contribution to electrochemistry in recent years.

Frumkin Memorial Medal

The Frumkin Memorial Medal may be given once every two years. It recognises the outstanding contribution of a living individual over his/her life in the field of fundamental electrochemistry.

Prix Jacques Tacussel

The Prix Jacques Tacussel may be awarded every two years to a person who has made important contributions to an electrochemical technique.

Katsumi Niki Prize for Bioelectrochemistry

The Katsumi Niki Prize for Bioelectrochemistry may be awarded every two years to a scientist who has made an important contribution to the field of bioelectrochemistry.

Bioelectrochemistry Prize of ISE Division 2

The Bioelectrochemistry Prize of ISE Division 2 may be awarded every two years to a scientist who has made an important contribution to the field of bioelectrochemistry.

Brian Conway Prize for Physical Electrochemistry

The Brian Conway Prize for Physical Electrochemistry may be awarded every two years, in recognition of the most successful achievements in Physical Electrochemistry in recent years.

Alexander Kuznetsov Prize for Theoretical Electrochemistry

The Kuznetsov Prize is awarded every two years to a living individual who has made groundbreaking contribution to the theory of electrochemical phenomena.

Jaroslav Heyrovsky Prize for Molecular Electrochemistry

The Jaroslav Heyrovsky Prize for Molecular Electrochemistry, supported by ISE Division 6, may be awarded annually to a scientist who has made an important contribution to the field of molecular electrochemistry in the last 5 years.

Tajima Prize

The Tajima Prize recognises the contributions made by younger electrochemists. Candidates must be less than 40 years old. An award may be made every year. The decision of the Award Committee will be based on published work.

Hans-Jürgen Engell Prize

The Hans-Jürgen Engell Prize may be awarded annually to a young electrochemist on the basis of published work in the field of corrosion, electrodeposition or surface treatment.

Oronzio and Niccolò De Nora Foundation Young Author Prize

The Oronzio and Niccolò De Nora Foundation Young Author Prize may be awarded annually to a scientist of less than 30 years for the best paper published in the ISE society journal in the calendar year preceding the award.

ISE Prize for Environmental Electrochemistry

The ISE Prize for Environmental Electrochemistry may be awarded annually to a scientist of less than 35 years of age on January 1 of the year of the award, for recent application-oriented achievements in the field of environmental electrochemistry.

ISE Prize for Applied Electrochemistry

The ISE Prize for Applied Electrochemistry may be awarded annually to a scientist of less than 35 years of age on January 1 of the year of the award, for recent achievements in the field of applied electrochemistry.

Early Career Analytical Electrochemistry Prize of Division 1

The Early Career Analytical Electrochemistry Prize of ISE Division 1, sponsored by OrigaLys, may be awarded annually to a scientist of less than 35 years of age on January 1st of the year of the award in recognition of her/his recent achievements in Analytical Electrochemistry.

Electrochimica Acta and ISE Travel Award for Young Electrochemists

The Electrochimica Acta Travel Awards for Young Electrochemists are aimed at favouring the participation of young electrochemists in the ISE Annual Meetings. The applicants must be ISE members. They must have obtained their Ph.D. not earlier than 6 years before the deadline for applications.

ISE Sponsored Meeting Information

What is an ISE sponsored meeting?

You may have noticed that scientific meetings in the field of electrochemistry are often labelled "ISE sponsored Meeting". What does this mean? In addition to organizing its own meetings, such as the Annual and Topical Meetings, ISE may sponsor other international scientific meetings in the area of electrochemistry. ISE sponsorship is intended to be a sign of quality for the meeting.

What are the requirements for ISE sponsorship?

ISE requires that the scientific quality of the meeting reaches the standard of its own meetings. It is desirable that the advisory board consists of ISE members, as far as possible. The meeting must be open to all ISE members.

Who decides?

The decision is normally taken by the officers of the ISE Division in whose field of interest the topic of the meeting lies. ISE Division Officers should be involved in the organisation of the meeting. The ISE Executive Committee decides on the sponsorship for meetings of general interest.

What are the obligations of the organizers?

The organizers have to publicise the ISE sponsorship in all the official documents related to the meeting (announcements, program, website etc.). At the meeting, a representative of ISE must be allowed to say a few words on behalf of the Society, and ISE must have the opportunity to advertise. After the meeting, the organizers should submit a short report to ISE to be published on the ISE website.

What do the organizers receive from ISE?

ISE publishes announcements and reports of ISE sponsored meetings on its website. The ISE Office can organize, free of charge, mailings to all, or a group of ISE members. In appropriate cases, there may be a special issue of Electrochimica Acta associated with these meetings. Decisions about special issues are made by the Editor-in-Chief.

What about money?

ISE sponsorship of a meeting does not necessarily include a financial contribution from ISE. The sponsoring Division(s) may use its funds to support such a meeting. The level of financial contribution will be determined by the Division(s), but a typical sum may be 500 Euros.

How to apply for ISE sponsorship?

If you would like to have the scientific meeting you are organizing sponsored by ISE, please send an e-mail to the ISE Office, at least one year in advance of the time of the meeting, and attach a completely filled in sponsor request form. This form can be found on the ISE website at: http://ise-online.org/sponsmeet/info.php. The decision will be taken by the Officers of the sponsoring Division(s), or by the Executive Committee, and the ISE Office will inform the applicant.

ISE Regional Student Meetings

Graduate Students who are members of ISE and intend to organize a Regional Student Meeting can apply for ISE financial support. Applications submitted by Graduate Students jointly with their supervisors or with other senior members of the staff of their university are also acceptable, but it is expected that the students will be engaged in the organizational aspects of the meeting as much as possible. Regional Student Meetings are typically one-day meetings involving graduate students active in the geographic area where the meeting takes place. The format of the meeting (oral presentations, posters, discussion sessions, other) is autonomously decided by the organizers who will be responsible for securing a venue and collecting registrations. No registration fee should be requested, if financially possible. When the Regional Student Meeting is associated to a larger ISE-sponsored meeting taking place in the same venue, the application must provide clear indication on the connections between the two events and must clearly describe the independent activities reserved to student participants. No later than one month after the meeting, the organizer(s) will send to the ISE Office a report on the event, including the names and the e-mail addresses of the participants. The student participants will be invited to apply for ISE membership. A report giving an overview of the meeting, accompanied by suitable pictures if available, will be posted on the ISE website under Student Activities.

Applications for ISE support must be sent by e-mail to the ISE Office, with a copy to the Regional Representative of the country where the meeting is organized, 3-12 months before the meeting date, using the application form. The local ISE Regional Representative, if requested, will assist the potential meeting organizer in the preparation of the application. Applications will be analyzed by a committee consisting of (i) ISE Immediate Past President (ii) ISE Secretary General, (iii) ISE Treasurer, (iv) ISE Vice President responsible for Educational Activity and (v) ISE Vice President responsible for Regional Sections. The response will be communicated to the applicant and to the relevant Regional Representative no later than 1 month after the application submission.

The maximum financial support will be 600 €; the expected use of the funds must be specified in the application. Co-sponsoring by other Societies and/or institutions is possible.

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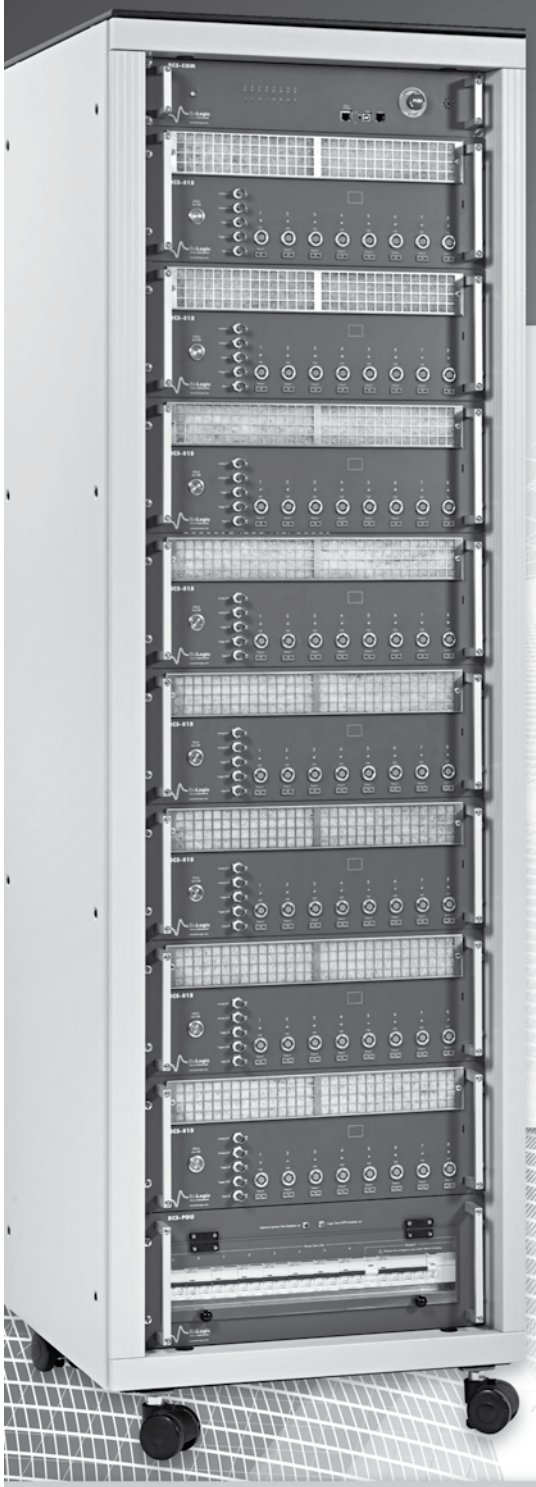

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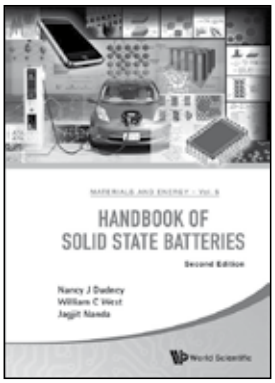

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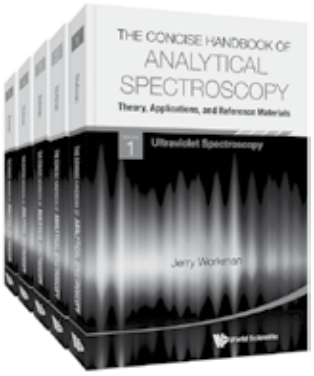

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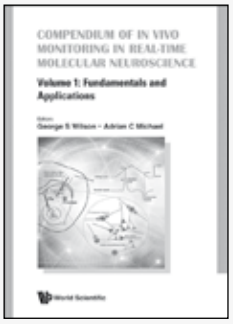

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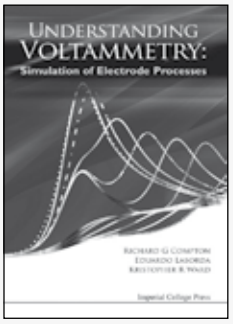

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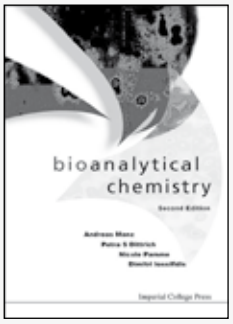

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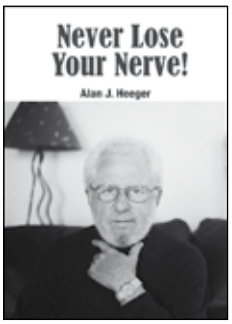

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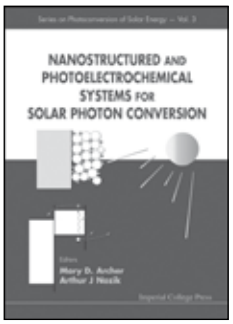

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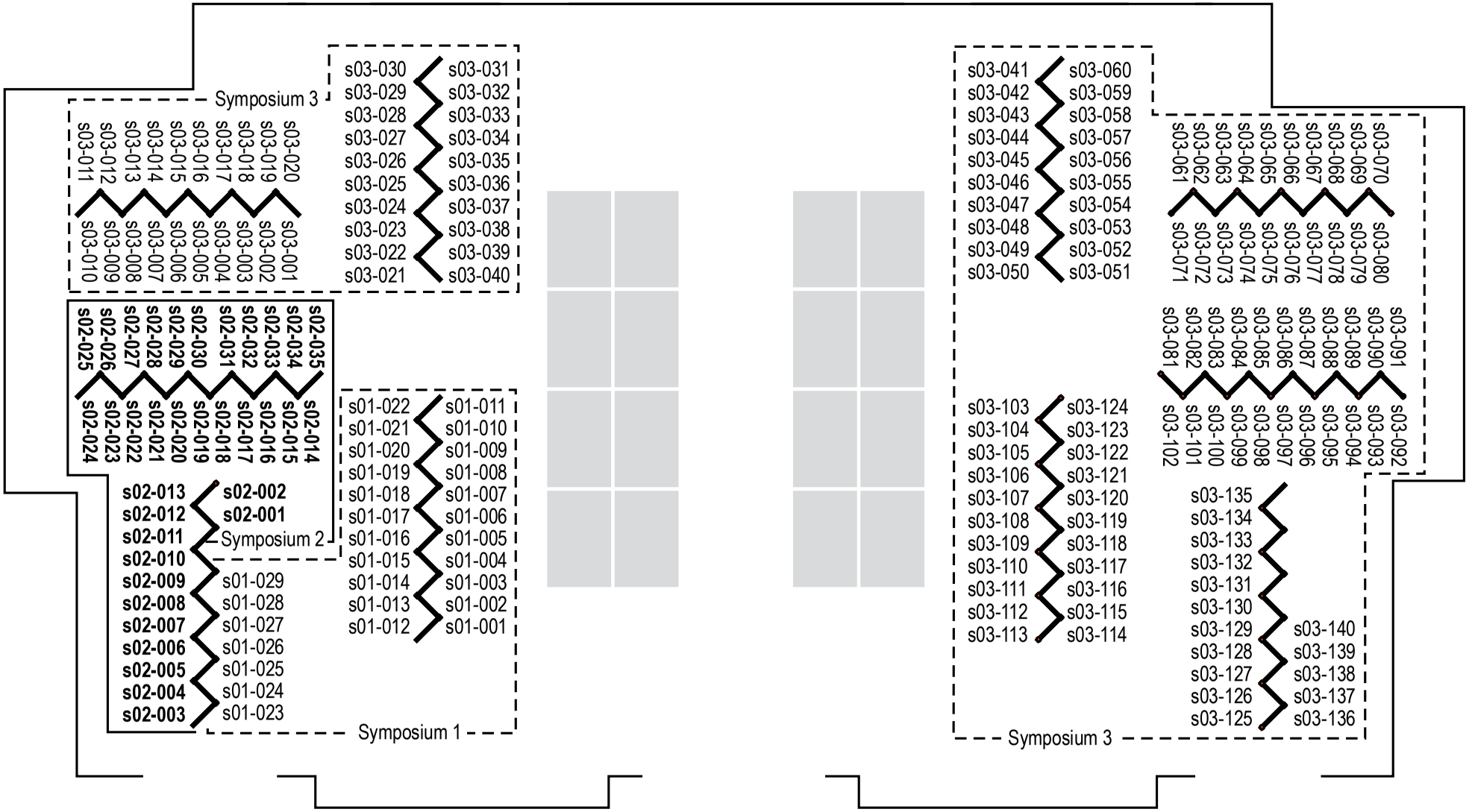
Poster plan of poster presentation session 1 - Monday

Symposia: 1, 2, 3
Poster set-up Monday: 08:30-10:30
Poster take-down Monday: 18:00-19:00

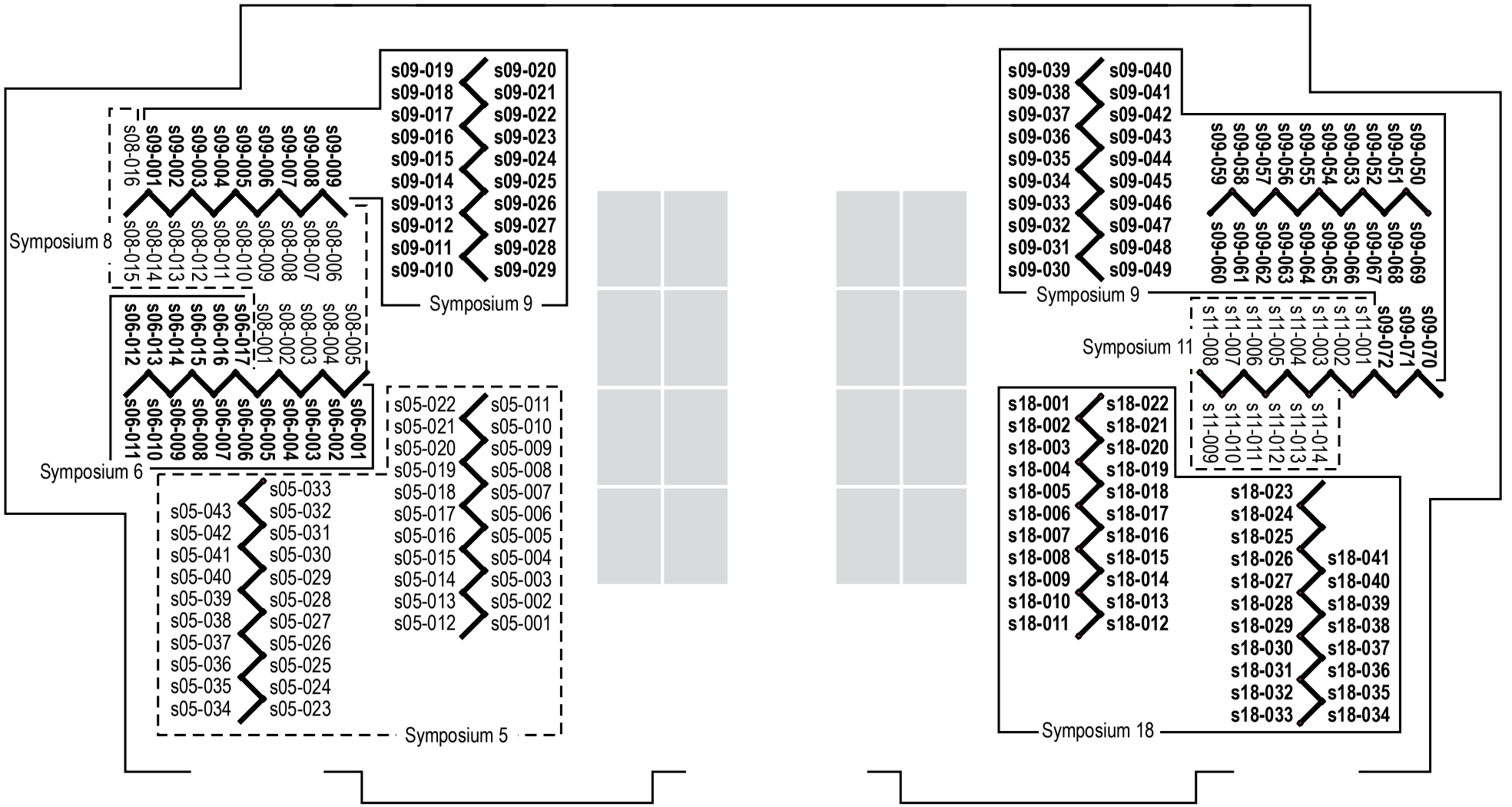
Poster Presentation: Monday, 5 October: 10:50-12:30



Poster plan of poster presentation session 2 - Tuesday

Symposia: 5, 6, 8, 9, 11, 18
Poster set-up Tuesday: 08:30-10:30
Poster take-down Tuesday: 18:00-19:00

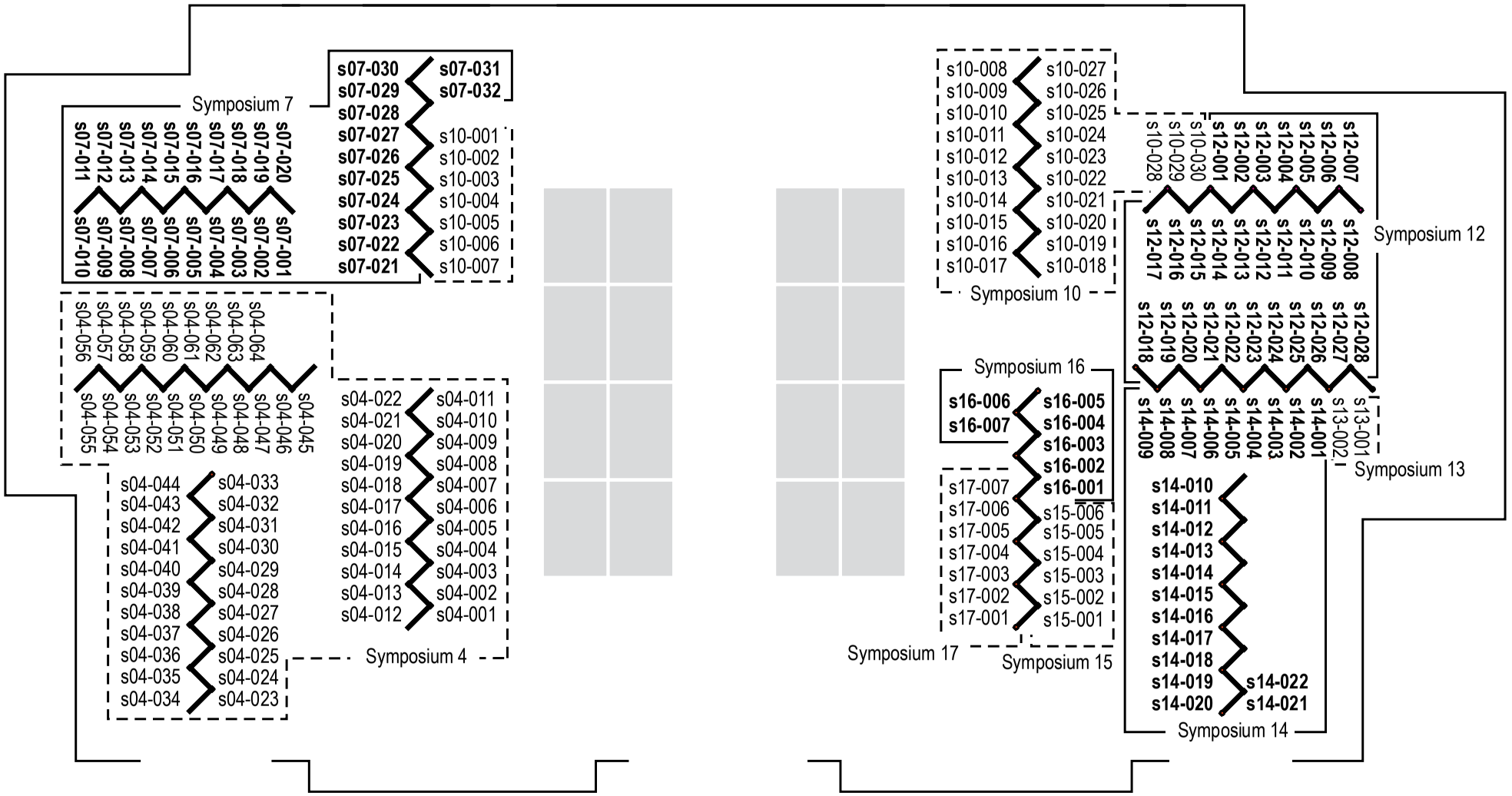
Poster Presentation: Tuesday, 6 October: 10:50-12:30



Poster plan of poster presentation session 3 - Wednesday

Symposia: 4, 7, 10, 12, 13, 14, 15, 16, 17
Poster set-up Wednesday: 08:30-10:30
Poster take-down Thursday: 14:00-16:00

Poster Presentation: Wednesday, 7 October: 10:50-12:30



Week schedule

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
08:15 - 09:15		Plenary Lecture	Plenary Lecture	Plenary Lecture	Plenary Lecture	Plenary Lecture
09:30 - 09:50		Oral presentations	Oral presentations	Oral presentations	Oral presentations	Oral presentations
09:50 - 10:10						
10:10 - 10:30						
10:30 - 10:50						
10:50 - 11:10		Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
11:10 - 11:30		Poster Session 1	Poster Session 2	Poster Session 3	11:10 - 12:10 General Assembly	Oral presentations
11:30 - 11:50						
11:50 - 12:10						
12:10 - 12:30					Lunch	
12:30 - 12:50		Lunch	Lunch			Closing Ceremony
12:50 - 13:50		12:50 -13-50 Division+Reg.Rep. meetings	12:50 - 13:50 Council meeting		12:50 - 13:50 Division meetings	
13:50 - 14:00	Tutorials & Workshop					
14:00 - 14:20		Oral presentations	Oral presentations		Oral presentations	
14:20 - 14:40						
14:40 - 15:00						
15:00 - 15:20						
15:20 - 15:40						
15:40 - 16:00				Excursions		
16:00 - 16:20						
16:20 - 16:40		Coffee Break	Coffee Break		Coffee Break	
16:40 - 17:00		Oral presentations	Oral presentations		Oral presentations	
17:00 - 17:20	Opening Ceremony					
17:20 - 17:40						
17:40 - 18:00						
18:00 - 18:20	Welcome Reception					
18:20 - 18:40						
18:40 - 19:00		Reception				
19:00 - 20:00			Taiwanese Opera		Banquet	