#### i

# The 68<sup>th</sup> Annual Meeting of the International Society of Electrochemistry

# Electrochemistry without Borders

# 27 August to 1 September, 2017, Providence, RI, USA

## **CONTENTS LIST**

Organizing Committee	V
Symposium Organizers	vi-vii
Tutorial Lectures and Workshop	viii
Plenary Lectures	ix
Prize Winners	x-xii
Poster Sessions	xii
ISE Society Meetings	xiii
Publications	xiv
Social Program	xiv
General Information	inside front cover
Registration Hours during the Meeting	inside front cover
On Site Registration Fees	
Lunches	inside front cover
Coffee Breaks	inside front cover
Internet Service	inside front cover
Accompanying Persons	inside front cover
Oral Presentation Program	
Monday, 27 August – Friday, 1 September	1
Poster Presentation Program - All Symposia	111
Author Index	145
ISE Society Information	164
Poster Plans for Monday, Tuesday and Wednesday (All Symposia)	
Week Schedule	
Symposium Schedule and Floor Plan	back cover

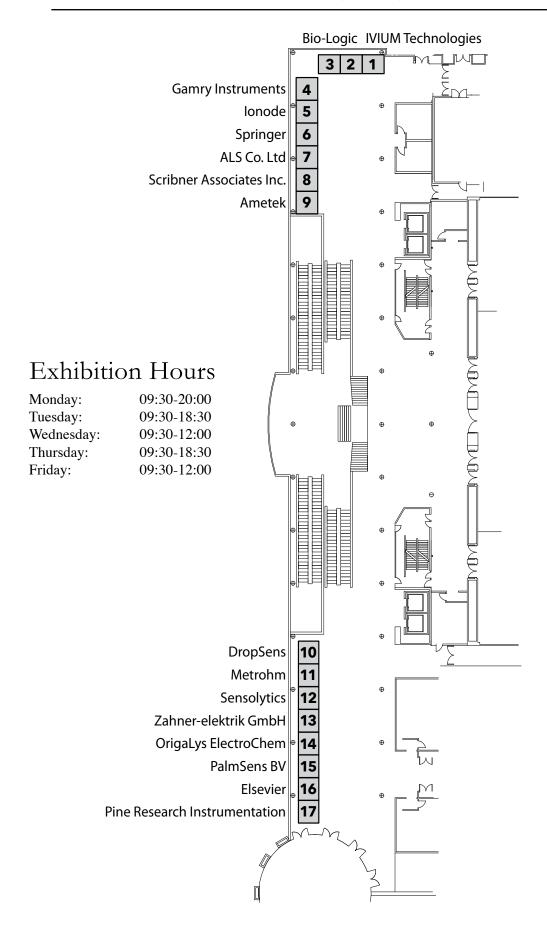
International Society of Electrochemistry, chemin du Closelet 2, 1006 Lausanne, Switzerland

Copyright © 2017

First published on the website http://annual68.ise-online.org 26 July 2017

All rights reserved. No part of this work may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the Publisher. No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of product liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein.

# Exhibitor booths



# Exhibitors

# Sponsors



Pine Research Instrumentation



**IVIUM Technologies** 



Pine Research Instrumentation



DropSens



PalmSens BV



**American Elements** 

Medtronic

Medtronic







ALS Co. Ltd



**⚠** Metrohm Metrohm

**SPRINGER NATURE** 

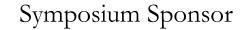
Springer



OrigaLys ElectroChem



**Gamry Instruments** 





Bio-Logic



Scribner Associates Inc.



Zahner-elektrik GmbH







Elsevier





# Welcome Address

On behalf of the Executive Committee of ISE, the Organizing Committee and Symposium Organizers, we welcome you to Providence and look forward to your participation in the 68<sup>th</sup> Annual Meeting of the International Society of Electrochemistry. The scientific theme of the meeting, Electrochemistry without Borders, is meant to emphasize the global character of the electrochemical community encompassed by the ISE. The international flavor of the conference is evident in the counties of origin of the 1176 abstracts to be presented. Only 26% of the abstracts come from North America. The rest come from Europe, Asia, South America, Australia, and Africa.

Providence is the capital of the state of Rhode Island and, founded in 1636, is one of the oldest cities in the United States. The city is situated at the mouth of the Providence River at the head of Narragansett Bay. Once an industrial city, it is now home to eight colleges and universities. The art museum at the Rhode Island School of Design is close to the convention center and offers a welcome respite from the rigors of conference presentations. Fans of supernatural horror fiction may like to know that Howard Phillips "H.P." Lovecraft was born here and lived the majority of his life on the East Side of Providence. The city center features walkways and small parks along the intersection of three rivers that pass through the city. Self-guided walking tours allow you to learn about manufacturing activities in the late 19<sup>th</sup> century in downtown Providence, stories of innovators, industrialists, intellectuals and the irrepressible on the east side, and the history of immigration and activism on the west side. Nearby Newport, known as the sailing capital of the world, is home to 19<sup>th</sup> century mansions of America's wealthiest families, now accessible to the public, and breathtaking views of the ocean and beaches.

We hope you will enjoy the conference and the unique camaraderie of the ISE. We express our sincere appreciation to our sponsors and exhibitors, to Thierry Lenzin and Kathleen Vionnet, who are the ISE Conference Organization, to the symposium organizers who assembled an exceptional program, to our student helpers, and to our plenary speakers. We thank each of you for your contribution to the meeting.

Welcome to Providence!

Mark E. Orazem, Sanjeev Mukerjee, and Plamen Atanassov Co-Chairs, Organizing Committee, 2017 ISE Annual Meeting

# Organizing Committee

Plamen Atanassov, Albuquerque, NM, USA (co-Chair)

Philip N. Bartlett, Southampton, UK

Gerardine Botte, Athens, OH, USA

Ignacio Gonzalez, Mexico, Mexico

E. Jennings Taylor, Englewood, OH, USA

Hasuck Kim, Daegu, South Korea

Daniel Little, Santa Barbara, CA, USA

Shelley Minteer, Salt Lake City, UT, USA

Sanjeev Mukerjee, Boston, MA, USA (co-Chair)

Mark E. Orazem, Gainesville, FL, USA (co-Chair)

# Symposium Organizers

#### Symposium 1: New Experimental Trends in Analytical Electrochemistry

Priscilla Baker (Coordinator), University of the Western Cape, South Africa

Carol Korzeniewski, Texas Tech University, USA

José M. Pingarron, Complutense University of Madrid, Spain

Philippe Buhlmann, University of Minnesota, USA

#### Symposium 2: Flow and Microfluidic Systems in Analytical Electrochemistry

Vincent Vivier (Coordinator), LISE - CNRS UPR15, France

Ingrid Fritsch, University of Arkansas, USA Lane Baker, University of Indiana, USA

Daniel Mandler, The Hebrew University of Jerusalem, Israel

#### Symposium 3: Electrochemical Approaches to Clinical Diagnostics and Medical Devices

James F. Rusling (Coordinator), University of Connecticut, USA

Fethi Bedioui, Université Paris Descartes - Chimie Paris Tech, France

Woonsup Shin, Sogang University, South Korea

Frédérique T. Deiss, Indiana University Purdue University Indianapolis, USA

#### Symposium 4: Bioelectrochemistry without Borders

Elisabeth Lojou (Coordinator), CNRS Marseille, France

Shelley Minteer, University of Utah, USA

Lars Jeuken, University of Leeds, UK

Scott Calabrese Barton, Michigan State University, USA

#### Symposium 5: Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

Robert Kostecki (Coordinator), Lawrence Berkeley National Laboratory, USA

Stefano Passerini, Karlsruhe Institute of Technology, Germany

Daniel Abraham, Argonne National Laboratory, USA

Vojtech Svoboda, Binergy Scientific, USA

Brett Lucht, University of Rhode Island, USA

#### Symposium 6: Fuel Cells and Electrolyzers

Hiroyuki Uchida (Coordinator), Clean Energy Center, University of Yamanashi, Japan

Piotr Zeleney, Los Alamos National Lab, USA

Deborah Jones, Université Montpellier 2, France

Bryan Pivovar, NREL, USA

#### Symposium 7: Supercapacitors from Materials and Processes to Applications

Francesca Soavi (Coordinator), University of Bologna, Italy

John Miller, IME, USA

Andrew Herring, Colorado School of Mines, USA

Roseanne Warren, University of Utah, USA

#### Symposium 8: Dealloying: Fundamentals, Application, and Control

Nikolay Dimitrov (Coordinator), SUNY at Binghamton, USA

E. Jennings Taylor, Faraday Technologies, USA

Natasa Vasiljevic, University of Bristol, UK

Thomas Moffatt, NIST, USA

#### Symposium 9: Ionic liquids as Media for Electrochemical Synthesis

Roberto Torresi (Coordinator), Univ. de Sao Paulo, Brazil

Charles Hussey, University of Mississippi, USA

Andreas Bund, Technische Universitaet Ilmenau, Germany

#### Symposium 10: Corrosion: Fundamentals, Passivity, and Prevention

Scott Lillard (Coordinator), University of Akron, USA

David Shifler, Naval Research Lab, USA

Nick Birbilis, Monash University, Australia

Homero Castaneda, Texas A&M University, USA

### Symposium 11: Synthesis and Applications of Electrochemically Active Materials

Francesco Paolucci (Coordinator), University of Bologna, Italy

Mikhail A. Vorotyntsev, D. Mendeleev University of Chemical Technology, Russia

Ross Milton, University of Utah, USA

Giovanni Zangari, University of Virginia, USA

#### Symposium 12: Electrochemical Technology for solving 21st Century Challenges

Gerardine Botte (Coordinator), Ohio University, USA

Karel Bouzek, Institute of Chemical Technology Prague, Czech Republic

Geoffrey H. Kelsall, Imperial College London, UK

Joaquin Rodriguez Lopez, University of Illinois, USA

#### Symposium 13: The Green Potential of Molecular Electrochemistry

Daniel Little (Coordinator), University of California, Santa Barbara, USA

Marilia O. F. Goulart, Universidade Federal de Alagoas, Brazil

Olivier Buriez, Ecole Normale Superieure, France

Carlos Frontana, Centro de Investigacion y Desarrollo Tecnologico en Electroquimica S. C., Mexico

#### Symposium 14: Let there be Light in Electrochemistry:

#### From Electrogenerated Chemiluminescence to Fluorescence

Gary Blanchard (Coordinator), Michigan State, USA

Zhifeng Ding, University of Western Ontario, Canada

Pawel Krysinski, University of Warsaw, Poland

Neso Sojic, University of Bordeaux, France

Giovanni Valenti, University of Bologna, Italy

#### Symposium 15: Physical and Interfacial Electrochemistry:

#### Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

Jamie Noël (Coordinator), The University of Western Ontario, Canada

Pawel J. Kulesza, University of Warsaw, Poland

Daniel Scherson, Case Western University, USA

#### Symposium 16: Electrochemistry of Metal Clusters and Nanoparticles

Flavio Maran (Coordinator), University of Padova, Italy

Anne Co, Ohio State University, USA

Dongil Lee, Yonsei University, South Korea

Michael V. Mirkin, City University of New York Energy Institute, USA

#### Symposium 17: Advances in Theory and Modeling of Electrochemical Systems

Michael Eikerling (Coordinator), Simon Fraser University, Canada

Alejandro A. Franco, Université de Picardie Jules Verne, France

Adam Weber, Lawrence Berkeley National Laboratory, USA

Douglas P. Riemer, Hutchinson Technology, Inc., USA

#### Symposium 18: Education for Electrochemistry and Electrochemical Engineering

Ignacio Gonzalez (Coordinator), Universidad Autonoma Metropolitana – Iztapalapa, Mexico

Johna Leddy, University of Iowa, USA

Jorge Ibanez, Universidad Iberoamericana, Mexico

#### Symposium 19: General Session

John Stickney (Coordinator), University of Georgia, USA

Gery R. Stafford, NIST, USA

# **Tutorial Lectures & Workshop**

# Sunday, 27 August 2017

Location: Rhode Island Convention Center (RICC)

#### Tutorial 1

# Room: 550

13:30 to 17:00

# Platinum Group Metal Free Catalysts

Frédéric Jaouen, Université Montpellier II, Montpellier, France

# **Tutorial 2**

# Room: 551A

13:30 to 17:00

# Biomedical Applications of Electrochemical Systems

**Shawn C. Kelley**, Medtronic Incorporated, Minneapolis, MN, USA **Erik Scott**, Medtronic Incorporated, Minneapolis, MN, USA

# Wednesday, 30 August 2017

Location: RICC, 5th floor

# Workshop

#### Room: Room 553

12:45 to 14:15

# Electrochimica Acta / ISE author and reviewer workshop

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

# **Plenary Lectures**

# Location: Ballroom A

## Monday, 28 August 2017



08:15 to 09:15 **Adam Heller**McKetta Department of Chemical Engineering, University of Texas, Austin, USA

Electrochemical Glucose Monitoring for Diabetes Management: Making the Monitoring Painless and Bloodless

# Tuesday, 29 August 2017



08:15 to 09:15

Clare P. Grey

Department of Chemistry, University of Cambridge, Cambridge, United Kingdom

Recent Developments in the Application of In- and Ex-situ NMR Spectroscopy to Batteries and Supercapacitors

# Wednesday, 30 August 2017



08:15 to 09:15 **Krishnan Rajeshwar**The University of Texas at Arlington, Arlington, USA

Photoelectrochemistry, Solid-State Chemistry, and Solar Fuels: A Nexus?

# Thursday, 31 August 2017



08:15 to 09:15 **Hector Abruña**Department of Chemistry & Chemical Biology, Cornell University, Ithaca, USA

Operando Methods for the Study of Energy Materials

# Friday, 1 September 2017



08:15 to 09:15

Jose H. Zagal

Department of Chemistry of Materials, University of Santiago de Chile, Santiago, Chile

Reactivity Descriptors of MNx Catalysts for the Oxygen Reduction Reaction

#### ISE Prize Winners 2016

#### Electrochimica Acta Gold Medal



**Hector Abruña**, *Cornell University, Itacha*, *NY*, *USA*Thursday 31 August 2017 from 08:15 to 09:15, Plenary Lecture, Ballroom A

Operando Methods for the Study of Energy Materials

The Electrochimica Acta Gold Medal 2016 is awarded to Hector Abruña, for his sustained excellent multidisciplinary studies of electrochemical phenomena using innovative combinations of electrochemical, SECM, differential electrochemical mass spectrometry and X-ray techniques.

# Brian Conway Prize for Physical Electrochemistry



**Marc Koper**, *Leiden University*, *Netherlands*Monday 28 August 2017, from 16:40 to 17:20, Symposium 15, Room 552B

New views on the electrochemistry of platinum

The Brian Conway Prize for Physical Electrochemistry is awarded to Marc Koper in recognition of his contributions to developments of the fundamental understanding of the reactivity of electrified interfaces, using a combination of theoretical and experimental approaches.

# Tajima Prize



Mikhail L. Zheludkevich, University of Kiel, German

Tuesday 29 August 2017, from 09:30 to 09:50, Symposium 10, Room 552A

**New Inhibition Approach for Active Protective Coatings on Mg Alloys** 

The Tajima Prize is awarded to Mikhail L. Zheludkevich for his outstanding researches in corrosion science, especially on localized electrochemical techniques and innovative protective coatings.

# Jaroslav Heyrovsky Prize for Molecular Electrochemistry



Ismael Diez Perez, University of Barcelona, Spain

Thursday 31 August 2017, from 14:00 to 14:40, Symposium 13, Room 556A

Probing Concepts in Single-Molecule Wires: Diodes, Electromechanics, FETs, Spinterface, Photoswitches and... Single-molecule Chemistry?

The Jaroslav Heyrovsky Prize for Molecular Electrochemistry is awarded to Ismael Diez Perez for his outstanding contributions to the field of molecular electron transfer obtained through electrochemically controlled single-molecule approaches.

# **ISE-Elsevier Prize for Green Electrochemistry**



**Javier Llanos**, Chemical Engineering Department, University of Castilla-la Mancha, Spain Monday 28 August 2017, from 18:20 to 18:40, Symposium 12, Room 555B

Development of Concentration Strategies for the Improvement of the Efficiency of Electrochemical Degradation Technologies

The ISE-Elsevier Prize for Green Electrochemistry is awarded to Javier Llanos in recognition of his significant contributions to developing electrochemical approaches for the reclamation of urban wastewater and treatment of industrial waste.

#### ISE Prize for Electrochemical Materials Science



Claire Villevieille, Paul Scherrer Institute, Villigen, Switzerland

Wednesday 30 August 2017, 10:10 to 10:30, Symposium 11, Room 553

**Designing low cost Na-ion batteries** 

The ISE Prize for Electrochemical Materials Science is awarded to Claire Villevieille for her contributions to synthesis and characterization of electroactive materials for energy storage application.

# ISE-Elsevier Prize for Experimental Electrochemistry



Nongjian Tao, Arizona State University, USA

Tuesday 29 August 2017, from 09:30 to 09:50, Symposium 1, Room 550

Imaging electrochemical current, reaction and surface stress optically

The ISE-Elsevier Prize for Experimental Electrochemistry is awarded to Nongjian Tao in recognition of his outstanding contribution to molecular electronics and particularly for the development of methods to measure conductivity of single molecules.

# **ISE-Elsevier Prize for Applied Electrochemistry**



Shaojun Guo, Peking University, China

Thursday 31 August 2017, from 09:50 to 10:30, Symposium 6, Ballroom B

Tuning the Surface and Interface of Metal-based Nanocrystals for Energy Electrocatalysis

The ISE-Elsevier Prize for Applied Electrochemistry is awarded to Shaojun Guo for outstanding advances in the molecular design of electrocatalysts, battery materials, and electrochemical sensors.

# Oronzio and Niccolò De Nora Young Author Prize



Lin Lu-Yin, National Taipei University of Technology, Taipei, Taiwan

Monday 28 August 2017, from 14:20 to 14:40, Symposium 7, Room 557

Material Category and Sequence Effects of Core-Shell Structures on Morphology and Electrocapacitive Performance of Energy Storage Electrodes

The Oronzio and Niccolò De Nora Young Author Prize is awarded to Lin Lu-Yin author of the article "Bifunctional Zinc Oxide Nanoburger Aggregates as the Dye-Adsorption and Light-Scattering Layer for Dye-Sensitized Solar Cells", Electrochimica Acta 169 (2015) 456–461.

# Bioelectrochemistry Prize of ISE Division 2



Jacek Lipkowski, University of Guelph, Canada

Tuesday 29 August 2017, 14:00 to 14:40 Symposium 4, Room 556B

Electrochemical, Spectroscopic and Surface Imaging Studies of Antimicrobial Peptides Incorporated into Biomimetic Membranes Supported at a Au Electrode

The Bioelectrochemistry Prize of ISE Division 2 is awarded to Jacek Lipkowski for his outstanding pioneering work on the structure of gold-supported biomimetic membranes incorporating channel-forming peptides.

# Early Career Analytical Electrochemistry Prize of ISE Division 1



Kosuke Ino, Tohoku University, Sendai, Japan

Monday 28 August 2017, from 16:40 to 17:00, Symposium 1, Room 550

Integrated electrochemical devices based on micro/nano-chemistry for bioassays

The Early Career Analytical Electrochemistry Prize of ISE Division 1 is awarded to Kosuke Ino in recognition of his research on integrated electrochemical devices based on micro/nano-chemistry for bioassays.

# Electrochimica Acta Travel Awards for Young Electrochemists 2017

Federico Bella, Torino, Italy Nadim Darwish, Perth, Australia Sergi Garcia-Segura, Tempe, USA

# ISE Travel Awards for Young Electrochemists 2017

Dominic Bresser, Ulm, Germany Veronica Celorrio, Bristol, UK Ruud Kortlever, Pasadena, USA Jilei Liu, Singapore, Singapore Ross Milton, Salt Lake City, USA Hwa Yoon, Berkeley, USA Aleksandar Zeradjanin, Erlangen, Germany

# Poster presentation session 1 - Monday

Symposia: s1, s2, s3, s4, s5, s8, s9

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

Poster Presentation: Monday, 28 August 2017: 10:45-12:45

(Ballroom D+E, 5th Floor)

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

# Poster presentation session 2 - Tuesday

Symposia: s7, s11, s12, s13, s14, s16, s18

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

Poster Presentation: Tuesday, 29 August 2017: 10:45-12:45

(Ballroom D+E, 5th Floor)

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

# Poster presentation session 3 - Wednesday

Symposia: s06, s10, s15, s17, s19

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

Poster Presentation: Wednesday, 30 August 2017: 10:45-12:45

(Ballroom D+E, 5th Floor)

Poster take-down Thursday: 12:00-14:00

# **ISE Society Meetings**

# Sunday, 27 August 2017

Opening Ceremony
17:00 to 18:00 > Ballroom A

# Monday, 28 August 2017

**Division Officers Luncheon Meeting** 

12:45 to 13:45 > Room 552 A

Regional Representatives Luncheon Meeting

12:45 to 13:45 > Room 552 B

# Tuesday, 29 August 2017

**Council Meeting** 

12:45 to 13:45 > Room 553

# Thursday, 31 August 2017

**General Assembly** 

11:00 to 12:00 > Ballroom A

# **Division Meetings**

12:45 to 13:45

Division 1 Analytical Electrochemistry > Room 556 A

Division 2 Bioelectrochemistry > Room 556 B

Division 3 Electrochemical Energy Conversion and Storage > Room 555 A

Division 4 Electrochemical Materials Science > Room 555 B

Division 5 Electrochemical Process Engineering and Technology > Room 552 A

Division 6 Molecular Electrochemistry > Room 552 B

Division 7 Physical Electrochemistry > Room 551 A

# Friday, 1 September 2017

**Closing Ceremony** 

12:30 to 12:45 > Ballroom A

See room locations on back cover

#### 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 José M. Pingarron, Symposium 2 Vincent Vivier, Symposium 3 Fethi Bedioui, Symposium 4 Elisabeth Lojou, Symposium 5 Robert Kostecki\*, Symposium 6 Hiroyuki Uchida, Symposium 7 Francesca Soavi, Symposium 8 Nikolay Dimitrov Symposium 9 Roberto Torresi, Symposium 10 Nick Birbilis\*, Symposium 11 Mikhail A. Vorotyntsev, Symposium 12 Geoffrey H. Kelsall, Symposium 13 Daniel Little, Symposium 14 Pawel Krysinski, Symposium 15 Jamie Noël, Symposium 16 Flavio Maran, 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 up to 170 papers.

Submission only on invitation of one of the Guest Editors.

Submission time span: 02 September 2017 - 17 December 2017.

## Social Program

#### RECEPTIONS

#### Welcome Reception

Sunday, 27 August 2017, 18:00-20:00

After the Opening Ceremony on 5th floor of RICC

#### **Monday Reception**

Monday, 28 August 2017, 18:40-20:00 on 5th floor of RICC

#### Thursday Banquet

Thursday, 31 August 2017, 19:00

At Providence Biltmore Grand Ballroom - a stunning venue on the 17th floor, with its soaring ceilings and panoramic providence views.

Price per Person: US\$87, places are limited

#### **EXCURSIONS**

#### Wednesday, 30 August

On Wednesday afternoon, 30 August 2017, excursions will be organized by Experience Rhode Island. All excursions must be pre-booked before 10 August 2017.

#### Newport: Rhode Island's Spectacular City by the Sea

Come away with us to one of America's most special places! You will love this journey to Rhode Island's two largest islands! On the tour, you will visit Rhode Island's most stunning state park, travel along breathtaking Ocean Drive, see and hear the stories behind the magnificent summer homes of the wealthiest Americans of the previous century, explore the cobblestone streets of colonial America, and much more! Filled with interesting stories and fantastic sights, you will love Rhode Island's spectacular city by the sea!

#### **Newport Harbor Cruise and Lighthouse Tour**

Join us for a delightful cruise of Newport harbor and Narragansett Bay aboard a private yacht where you will enjoy a fantastic view of some of Newport's most stunning estates, and get up close to some of Rhode Island's most famous lighthouses. You will love this tour on Rhode Island's spectacular Bay!

#### **Boston: Capital of New England**

Join us for a fantastic trip to Boston, the capital of New England! You will enjoy a land and water tour past all the famous sights, spend time on the Freedom Trail, and browse the world-famous Quincy Market. You will love this tour of one of America's most famous and historic cities!

# ORAL PRESENTATION PROGRAM

7
$\overline{}$
0
Ñ
ı,
ίO
3
$\overline{\mathbf{n}}$
3
⋖
$\infty$
ñ
_
ത
ᇴ
č
7
$\simeq$
5
_

ROOMS:	Ballroom A	Ballroom B	Ballroom C	Room 550	Room 553	Room 554	Room 557	Room 551A	Room 551B	Room 552A	Room 552B	Room 555A	Room 555B	Room 556A	Room 556B
SYMPOSIUM	Symposium 5	Symposium 6	Symposium 18	Symposium1	Symposium 11	Symposium 2	Symposium 7	Symposium 14	Symposium 16	Symposium 10	Symposium 15	Symposium 19	Symposium 7 Symposium 14 Symposium 16 Symposium 10 Symposium 15 Symposium 19 Symposium 12 Symposium 9	Symposium 9	Symposium 4
08:15 - 09:15							Plenary Lect	Plenary Lecture: <u>Adam Heller</u> (Ballroom A)	er (Ballroom A)						
09:30 - 09:50	Zhijia Du	Barr Zulevi	J. Noel	Korzeniewski	A. Pailleret	R. Anand	A Kornychov	F. Paolucci	٥	V Vivior	T Moffat	K. Sakamaki	Q. Zhang	D Bálangar	K. Kano
09:50 - 10:10	D. Bresser	Guang Li	N. Spinner	O. Arotiba	J. Dolinska	D. Pauwels	A. Ivdinysiev	J. Kim	9	٧. ١٧١٥	I. IVIOIIAL	J. F. de Brito	M. Rosales	D. Delaligei	S. C. Barton
10:10 - 10:30	R. Kostecki	Xi. Zhang	C. Brett	J. Rohan	H. Habazaki	L. Baker	C. Santoro	V. Essmann	T. Tsukuda	M. Santamaria	B. Ulgut	S. Hussain	G. Kelsall	A. Doherty	M. Buzzeo
10:30 - 10:45								Coffee Break							
10:50 - 11:10 11:10 - 11:30 11:30 - 11:50															
11:50 - 12:10							POSTER SESSI	POSTER SESSION 1 (s1, s2, s3, s4, s5, s8, s9)	8, s4, s5, s8, s9)						
12:10 - 12:30 12:30 - 12:45															
12:45 - 13:45								Lunch		Division Officers Meeting	Regional Rep. Meeting				
	Symposium 5		Symposium 18	Symposium 6  Symposium 18   Symposium1  Symposium 11		Symposium 2	Symposium 7	Symposium 14	Symposium 16	Symposium 10	Symposium 15	Symposium 19	Symposium 14 Symposium 16 Symposium 10 Symposium 15 Symposium 19 Symposium 12  Symposium 9	Symposium 9	Symposium 4
14:00 - 14:20	>	out I robino	M. Orazem	20100/	\ \ \ \	-	T. Brousse	; ;	F. Maran	B. Gwinner	R. Hillman	G. Zangari	A. Allanore	T. Engemann	#*:
14:20 - 14:40	1. Aid	Swider-Lyons	J. Leddy	J. Verillori	1. Ellaga	o. G. Lellidy	LY. Lin	o. Au	D. Lee	M. Sakairi	M. Duca	G. Kissling	C. Bonnaud	Y. Yan	o. Elliott
14:40 - 15:00	B. Lucht	M. Daletou	Rodriguez-L.	V. Brasiliense	M. Mooste	C. Henry	T. Mathis	F. Polo	D. Kauffman	N. Pebere	R. Sacci	S. Yae	T. Hoshino	C. Lousteau	N. Plumeré
15:00 - 15:20	P. Novak	I. Martens	G. G. Botte	E. N. Saw	C. Janáky	M. Heien	Kumar Sahoo	S. Pan	W. Chen	A. Nemcova	E. Smirnov	S. Cihangir	E. Bustos	C. Pereira	S. A. Neto
15:20 - 15:40	M. Inaba	F. Labbe	R. M. Torresi	P. Banet	M. Lawrence	M. Boutelle	T. Wang	G. Valenti	J. He	TM. Chiu	L. Jacobse	M. Schneider	D. Zhan	A. Bund	P. Bartlett
15:40 - 16:00	Lampe-Onnerud	K. Kakinuma	F. Garzon	S. Amemiya	T. Rebis	R. S.Martin	Q. Gao	JJ. Zhu	Wand	Valero-Vidal	A. Zeradjanin	T. Yin	T. He	C. Stafford	F. Gomes
16:00 - 16:20	M. Ishikawa	Y. Wang	P. Buhlmann	N. Ritzert	P. Yu	I. Fritsch	C. Xiao	F. Deiss	5	E. Sutter	J. Drnec	S. K. Ghosh	A. Snedden	0.0	M. Kato
16:20 - 16:40								Coffee Break							
16:40 - 17:00	V. Battaglia	G. Sievers	J. Ibanez	K. Ino	S. Cattarin	q	מווט	D Foreter	Y. Negishi	Ω VIIα	M Koner	G. G. Lang	K. Conforti	A. Ispas	K. Hasan
17:00 - 17:20	C. Bolli	L. Dubau	R. Hillman	C. Brett	S. Bollo	O. Fullid		17. I OI SIGI	D. Cliffel	IV. NGIII	w. Nobel	N. Darwish	L. Godínez	V. Zinovyeva	A. Fitch
17:20 - 17:40	Y. Kobayashi	R. Chattot	P. J. Kulesza	E. Gil	F. R. Xiao	L.Thouin	B. Asbani	JJ. Xu	W. Choi	H. Cong	X. Deng	E. Laborda	H. Makelane	M. Ueda	R. Yasujima
17:40 - 18:00	M. Lowe	T. Asset	G. Meloni	Fatibello-Filho	F. Tasca	F. Bedioui	B. Pibaleau	N. Sojic	N. Ostojic	E. Lebon	F. Bella	A. O'Mullane	M. Sandoval	O. Holloczki	R. Milton
18:00 - 18:20	JS. Yu	J. Chamier	W. Mustain	M. de Oliveira	K. Hernandez	M. Uhlemann	R. Sha	J. Li	Stockmann	B. Wouters	JF. Li	W. Araujo	K. Smith	R. Kinch	L. Alfonta
18:20 - 18:40	J. Muldoon		L. Baker	D. Koley	K. Natsui	X. Yang	T. Vignal	H. Cui		S. Lorenzi	M. Rueda		J. Llanos	M. Balva	P. Hellwig
18:40 - 20:00								Reception							

# Monday 28 August 2017 - Morning

# Plenary Lecture

# Room: Ballroom A

Chaired by: Wolfgang Schuhmann

08:15 to 09:15

Adam Heller (McKetta Department of Chemical Engineering, University of Texas, Austin, USA)

Electrochemical Glucose Monitoring for Diabetes Management: Making the Monitoring Painless and Bloodless

# S01 New Experimental Trends in Analytical Electrochemistry

# Room: 550

Chaired by: Philippe Buhlmann

09:30 to 09:50 Invited

Carol Korzeniewski (Department of Chemistry and Biochemistry, Texas Tech University, Lubbock, USA)

Confocal Raman Microscope Measurements in the Study of Catalytic Membranes and Thin Film Materials

09:50 to 10:10

**Omotayo Arotiba** (Applied Chemistry, University of Johannesburg, Johannesburg, South Africa), Narshone Soda, Duduzile Nkosi, Nobanathi Maxakato, Nonhlangabezo Mabuba

A polyamidoamine dendrimer - streptavidin supramolecular architecture platform for DNA biosensing

10:10 to 10:30

**James Rohan** (*Tyndall National Institute, University College Cork, Cork, Ireland*), Amelie Wahl, Ian Seymour, Alan O'Riordan

Diffusion Profiles and Analyte Signal Amplification at Gold Interdigitated Nanowire Electrode Arrays

10:30 to 10:45

# S02 Flow and Microfluidic Systems in Analytical Electrochemistry

# Room: 554

Chaired by: Ingrid Fritsch and Susan Lunte

09:30 to 09:50 Invited

Robbyn Anand (Department of Chemistry, Iowa State University, Ames, USA), Min Li

Integrated Electrochemical Analysis of Circulating Tumor Cells Isolated by Dielectrophoresis

09:50 to 10:10

**Danny Pauwels** (Faculty of Applied Engineering, University of Antwerp, Wilrijk, Belgium), Sander Neukermans, Annick Hubin, Sabine Van Doorslaer, Tom Breugelmans

Electrocatalyic flow systems combined with advanced EPR techniques to unravel reaction mechanisms and determine rate constants at different nano-structured electrodes

10:10 to 10:30

Lane Baker (Chemistry, Indiana University, Bloomington, USA)

Coupling Ion Channels to Mobile Nanofluidic Devices (Nanopipettes)

10:30 to 10:45 Coffee Break

# S04 Bioelectrochemistry without Borders

# Room: 556B

Chaired by: Scott Calabrese Barton and Ross Milton

09:30 to 09:50 Invited

Kenji Kano (Graduate School of Agriculture, Kyoto University, Kyoto, Japan)

Construction of Direct Electron Transfer-Type Bioelectrodes with High Performance

09:50 to 10:10

**Scott Calabrese Barton** (Dept. of Chemical Engineering & Materials Science, Michigan State University, East Lansing, USA), Yuanchao Liu

Kinetic Monte Carlo Study of Channeling in Synthetic Bioreaction Networks

10:10 to 10:30

Marisa Buzzeo (Chemistry, Barnard College, Columbia University, New York, USA), Elizabeth Wiita, Kelsey Lynch, Kathleen Frommer

Probing the Physiological Redox Role of Selenocysteine

10:30 to 10:45

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

#### Room: Ballroom A

Chaired by: Robert Kostecki and Daniel Abraham

09:30 to 09:50

Zhijia Du (Energy and Transportation Science Division, Oak Ridge National Laboratory, Oak Ridge, USA), Jianlin Li, Claus Daniel, David Wood

Si alloy/graphite coating design principles for Li-ion battery with high energy density

09:50 to 10:10

**Dominic Bresser** (*Helmholtz Institute Ulm* (*HIU*), Karlsruhe Institute of Technology (*KIT*), Ulm, Germany), Franziska Mueller, Stefano Passerini

Conversion/Alloying Materials - Impact of the Choice of Elements

10:10 to 10:30

**Robert Kostecki** (*ESDR*, *LBNL*, *Berkeley*, *USA*), Maurice Ayache, Hans Bechtel, Angelique Jarry, Michael Martin, Philip Ross, Lydia Terborg, Atetegeb Haregewoin, Ivana Hasa

X-ray and Optical Spectroscopy and Imaging of the SEI Layer on Intermetallic Anodes

10:30 to 10:45

Coffee Break

# S06 Fuel Cells and Electrolyzers

#### Room: Ballroom B

Chaired by: Alexey Serov and Hiroyuki Uchida

09:30 to 09:50

**Barr Zulevi** (*Pajarito Powder*, *Albuquerque*, *USA*), Alexey Serov, Samuel McKinney, Geoffrey McCool, Henry Romero, Alia Lubers, Madeleine Odgaard, Huong Doan, Ryan Pavlicek, Sanjeev Mukerjee, Christopher Capuano, Katherine Ayers, Plamen Atanassov

PGM-free Hydrogen Evolution and Oxidation Electrocatalysts for AEM Electrodes

09:50 to 10:10

**Guang Li** (College of Material Science and Engineering, Donghua University, Shanghai, China), Yang Wang, Kang Fu, Linchang Mao, Junhong Jin

D-porous carbon nanofibers as promising support for platinum catalyst to enhance oxygen reduction reaction in fuel cells

10:10 to 10:30

**Xinsheng Zhang** (Chemical Engineering, East China University of Science and Technology, Shanghai, China), Wenjiao Huang, Paul A. Kohl

Catalysts Supported on Functionalized Carbon Nanotubes for Oxygen Reduction Reaction in PEM/AEM Hybrid Fuel Cells

10:30 to 10:45

# S07 Supercapacitors from Materials and Processes to Applications

#### Room: 557

Chaired by: Tyler Mathis and John Miller

09:30 to 10:10 Keynote

Alexei Kornyshev (Chemistry, Imperial College London, London, United Kingdom)

The Essential Physics of Direct and Reverse Electroactuation: from Energy Storage to Energy Harvesting and Robotics

10:10 to 10:30

**Carlo Santoro** (*Chemical and Biological Engineering, University of New Mexico, Albuquerque, USA*), Francesca Soavi, Mounika Kodali, Alexey Serov, Plamen Atanassov

Self-charging Microbial Desalination Cells: New Class of Power Generating and Water Desalination Devices

10:30 to 10:45

Coffee Break

# S09 Ionic Liquids as Media for Electrochemical Synthesis

#### Room: 556A

Chaired by: Roberto M. Torresi

09:30 to 10:10 Keynote

**Daniel Bélanger** (*Chimie, Université du Québec à Montréal, Montréal, Canada*), Laura Coustan, Galyna Shul Superconcentrated aqueous electrolytes

10:10 to 10:30

**Andrew Doherty** (Chemistry and Chemical Engineering, The Queen's University of Belfast, Belfast, United Kingdom), Eunan Marley

Mechanism and Kinetics of the Electrocarboxylation of Aromatic Carbonyls in Ionic Liquids

10:30 to 10:45

Coffee Break

# S10 Corrosion: Fundamentals, Passivity, and Prevention

#### Room: 552A

Chaired by: Bernard Tribollet

09:30 to 10:10 Keynote

Vincent Vivier (LISE, UPMC/CNRS, Paris, France), Michel Keddam, Mireille Turmine

The impedance response of a passive film revisited by a double modulation technique

10:10 to 10:30

Monica Santamaria (Electrochemical Materials Science Laboratory, DICAM, Università di Palermo, Palermo, Italy), Giada Tranchida, Maria Clesi, Francesco Di Franco, Francesco Di Quarto

Electronic Properties and Corrosion Resistance of Passive Films on Austenitic and Duplex Stainless Steels

10:30 to 10:45

# S11 Synthesis and Applications of Electrochemically Active Materials

# Room: 553

Chaired by: Francesco Paolucci

#### 09:30 to 09:50 Invited

Alain Pailleret (Laboratoire Interfaces et Systèmes Electrochimiques, Sorbonne Universités, UPMC Univ. Paris VI, CNRS, Paris, France), Adrien Mocaer

Further Insight into the Electrochemo-Mechanical Behaviour of Electronically Conducting Polymers: Development of New Methodologies Involving Electrochemical Atomic Force Microscopy

#### 09:50 to 10:10

**Joanna Dolinska** (Department of Electrode Processes, Institute of Physical Chemistry Polish Academy of Sciences, Warsaw, Poland), Marcin Holdynski, Marcin Opallo

Metal nanoparticles - polysaccharides hybrids for electrode modification

#### 10:10 to 10:30

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

Photoelectrochemical Activity of Mesoporous  ${\rm TiO}_2$  Films Formed by Anodizing in Hot Phosphate/Glycerol Electrolyte

#### 10:30 to 10:45

Coffee Break

# S12 Electrochemical Technology for solving 21st Century Challenges

#### Room: 555B

Chaired by: Gerardine G. Botte and Geoff Kelsall

#### 09:30 to 09:50

Qianqian Zhang (School of Chemistry and Environment, Beihang University, Beijing, China)

Alternating Current Output from a Photosynthesis-Inspired Photoelectrochemical Cell

#### 09:50 to 10:10

Mario Rosales (Ingenieria Geomatica e Hidraulica, Universidad de Guanajuato, Guanajuato, Mexico), José Luis Nava

Simulations of two-phase flow during the cathodic H<sub>2</sub> evolution in a pre-pilot multi-electrode stack having 12 cells in continuous mode

#### 10:10 to 10:30

Geoff Kelsall (Chemical Engineering, Imperial College London, London, United Kingdom), Franky Bedoya Lora, Anna Hankin, Isaac Gentle

Prediction of Photo-anode Current Densities for Modelling Scaled-up Water-Splitting Reactors

#### 10:30 to 10:45

# S14 Let there be Light in Electrochemistry: From Electrogenerated Chemiluminescence to Fluorescence

# Room: 551A

Chaired by: Giovanni Valenti

#### 09:30 to 09:50 Invited

Francesco Paolucci (Chemistry Giacomo Ciamician, Alma Mater Studiorum University of Bologna, Bologna, Italy), Giovanni Valenti, Massimo Marcaccio, Enrico Rampazzo, Luca Prodi

Electrochemiluminescence meets nanotechnology, theory and practice of the silica nanoparticles approach

#### 09:50 to 10:10

**Joohoon Kim** (Department of Chemistry, Kyung Hee University, Seoul, Korea)

Facile Tailoring of Chemically Converted Graphenes Using a Water-soluble Pyrene Derivative for Sensitive Electrochemiluminescence-based Analyses

#### 10:10 to 10:30

Vera Essmann (Chemistry and Biochemistry, Ruhr-Universitaet Bochum, Bochum, Germany), Wolfgang Schuhmann

Scanning Electrochemical Bipolar Microscopy (SECBM)

#### 10:30 to 10:45

Coffee Break

# S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

#### Room: 552B

Chaired by: Pawel J. Kulesza and James Noel

#### 09:30 to 10:10 Keynote Invited

**Thomas Moffat** (*Material Measurement Laboratory, NIST, Gaithersburg, USA*), Yihua Liu, Sang Hyun Ahn, Nicole Ritzert, Rongyue Wang, Eleanor Gillette, Dincer Gokcen, Haiyan Tan, Carlos Hangarter, Leo Bendersky, Ugo Bertrocci, Hoydoo You

Electrochemical Atomic Layer Deposition: Self-terminated Electrodeposition Reactions and Pulse Plating

#### 10:10 to 10:30

**Burak Ulgut** (*Chemistry, Bilkent University, Ankara, Turkey*), Pinar Aydogan Gokturk, Can Berk Uzundal, Merve Taner Camci, Coskun Kocabas, Sefik Suzer

In-situ X-Ray Photoelectron Spectroscopic Investigations during Electrochemical Experiments in Ionic Liquids

#### 10:30 to 10:45

# S16 Electrochemistry of Metal Clusters and Nanoparticles

#### Room: 551B

Chaired by: Flavio Maran

09:30 to 10:10 Keynote

Shaowei Chen (Department of Chemistry and Biochemistry, University of California, Santa Cruz, USA)

Electron-Transfer Chemistry of Functional Nanoparticles: An Interfacial Perspective

10:10 to 10:30 Invited

**Tatsuya Tsukuda** (Department of Chemistry, The University of Tokyo, Tokyo, Japan)

Gold Superatoms and Superatomic Molecules Protected by Ligands

10:30 to 10:45

Coffee Break

# S18 Education for Electrochemistry and Electrochemical Engineering

# Room: Ballroom C

Chaired by: Ignacio Gonzalez and Jorge Ibanez and Johna Leddy

09:30 to 09:50 Invited

**James Noel** (Chemistry, The University of Western Ontario, London, Canada)

Teaching Electrochemistry to other Scientists - The Tricky Parts

09:50 to 10:10

**Neil Spinner** (*Electroanalytical Sales*, *Pine Research Instrumentation*, *Durham*, *USA*), Timothy Paschkewitz, Alex Peroff, Li Sun

What Your Students Ought to Know about Electrochemistry (But Ask Us Instead)

10:10 to 10:30

Christopher Brett (Department of Chemistry, University of Coimbra, Coimbra, Portugal)

Communicating Electrochemistry and the Language of Electrochemistry

10:30 to 10:45

#### S19 General Session

# Room: 555A

Chaired by: Gery Stafford

09:30 to 09:50

Kenji Sakamaki (Chemistry Course, Dept of Chemistry and Biochemistry, Fukushima College, National Institute of Technology, Iwaki, Fukushima, Japan), Honoka Matsuda, Sayuri Usui, Wakana Sakashita, Ryoko Kato, Haruka Endo, Masataka Sato

Photoelectrochemical Visible Light Zero Bias Hydrogen Generation with Membrane-Based Cells Designed for Decreasing Overall Water Electrolysis Voltage and Water Dissociation (16)

#### 09:50 to 10:10

**Juliana Ferreira de Brito** (*Analytical Chemistry, São Paulo State University, Araraquara, Brazil*), Maria Valnice Zanoni, Juliano Cardoso, Simone Stulp, Juliana Brito, Jáder Flor, Regina Frem

 ${
m TiO_2}$  nanotubes modified with ZIF-8 (Zeolites Imidazole Frameworks) used for capturing and photoelectroreduction of  ${
m CO_2}$ 

#### 10:10 to 10:30

**Sajid Hussain** (*Institute of Chemistry, University of Tartu, Tartu, Estonia*), Heiki Erikson, Nadezda Kongi, Maido Merisalu, Peeter Ritslaid, Väino Sammelselg, Kaido Tammeveski

Heat-Treatment of Pt Nanoparticles Sputter Deposited on Multi-Walled Carbon Nanotubes for Oxygen Reduction Reaction

#### 10:30 to 10:45

# Monday 28 August 2017 - Afternoon

# S01 New Experimental Trends in Analytical Electrochemistry

#### Room: 550

Chaired by: Carol Korzeniewski

#### 14:00 to 14:40 Keynote

Jill Venton (Chemistry, University of Virginia, Charlottesville, USA), Cheng Yang

Carbon Nanomaterial Electrodes for Neuroscience Applications

#### 14:40 to 15:00

**Vitor Brasiliense** (Chemistry Department, Paris Diderot University, Paris, France)

In Operando Monitoring of Unique Cobalt Oxide Nanoparticles: Electrodeposition and Electrocatalysis

#### 15:00 to 15:20

En Ning Saw (Chemistry and Biochemistry, Ruhr-University Bochum, Bochum, Germany), Markus Kratz, Kristina Tschulik

Measuring Single Nanoparticle Reaction Kinetics by Time-Resolved Nano Impact Electrochemistry

#### 15:20 to 15:40 Invited

Philippe Banet (Laboratoire de Physicochimie des Polymères et Interfaces, Université de Cergy Pontoise, Neuville sur Oise, France), Pradip Kar, Roland Geagea, Mathieu Durand, Jantina Upan, Xolani Terrance Ngema, Nicolas Sanson, Kontad Ounnunkad, Jaroon Jakmunee, Priscila Baker, Rachel Fanelwa Ajayi, Pierre-Henri Aubert

Silver Nanoparticles in Electrochemical Biosensors

#### 15:40 to 16:00 Invited

Shigeru Amemiya (Chemistry, University of Pittsburgh, Pittsburgh, USA)

Nanogap Voltammetry of Clean Surface of Electron-Beam-Deposited Carbon

#### 16:00 to 16:20

**Nicole Ritzert** (Material Measurement Laboratory, National Institute of Standards and Technology, Gaithersburg, USA), Thomas Moffat

Using Scanning Electrochemical Microscopy and Optical Microscopyto Study Diffusion Layer Chemistry during Metal Electrodeposition

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00 Early Career Analytical Electrochemistry Prize of ISE Division 1

Kosuke Ino (Graduate School of Engineering, Tohoku University, Sendai, Japan)

Integrated electrochemical devices based on micro/nano-chemistry for bioassays

#### 17:00 to 17:20

Christopher Brett (Department of Chemistry, University of Coimbra, Coimbra, Portugal), Najib Ben Messaoud, Mariana Emilia Ghica, Chérif Dridi, Mounir Ben Ali

New Electrochemical Sensing Strategies for Bisphenol A

#### 17:20 to 17:40

Eric Gil (Faculty of Pharmacy, Federal University of Goias, Goiânia, Brazil), Isaac Yves Lopes de Macêdo, Morgana Fernandes de Alecrim, Luane Ferreira Garcia, Germán Sanz Lobón, Wallans dos Santos, Ricardo Menegatti, Freddy Fernandes Guimarães

Electrochemical Characterization of Darbufelone and Electro-Oxidation Pathway

17:40 to 18:00

**Orlando Fatibello-Filho** (*Department of Chemistry, Federal University of São Carlos, São Carlos, Brazil*), Juliana V. Maciel, Elson L. Fava, Tiago A. Silva, Daiane Dias

Combination of Voltammetry of Immobilized Microparticles and Nanostructured Carbon Black Films for the Determination of Organic Compounds

18:00 to 18:20

**Marcelo de Oliveira** (Departamento de Quimica - FFCLRP, Universidade de São Paulo, Ribeirão Preto - SP, Brazil), Erica Oiye, Maria Fernanda Ribeiro, Juliana Katayama

Analysis of MDMA by Square Wave Voltammetry with Carbon Paste Electrode

18:20 to 18:40

Dipankar Koley (Chemistry, Oregon State University, Corvallis, USA)

Carbon-based ion-selective electrodes: microsensors for scanning electrochemical microscopy

# S02 Flow and Microfluidic Systems in Analytical Electrochemistry

# Room: 554

Chaired by: Daniel Mandler and Robbyn Anand

14:00 to 14:40 Keynote

**Serge G. Lemay** (MESA+ Institute for Nanotechnology, University of Twente, Enschede, Netherlands)

Mass Transport in Electrochemical Nanofluidic Devices

14:40 to 15:00 Invited

Charles Henry (Chemistry, Colorado State University, Fort Collins, USA)

Electrochemical Paper-Based Analytical Devices for Clinical and Environmental Diagnostics

15:00 to 15:20

**Michael Heien** (*Chemistry and Biochemistry, University of Arizona, Tucson, USA*), Drew Farrell Portable Low-Cost Instrumentation for Trace Electrochemical Analysis of Heavy Metals in the Field

15:20 to 15:40 Invited

Martyn Boutelle (Department of Bioengineering, Imperial College London, London, United Kingdom), Isabelle Samper, Michelle Rogers, Chi Leng Leong, Sally Gowers

Development of a portable, microfluidic, multi-analyte electoanalytical device for monitoring dynamic changes in human tissue

15:40 to 16:00 Invited

R. Scott Martin (Dept. of Chemistry, Saint Louis University, St. Louis, USA)

New Approaches of Microchip-based Electrochemical Detection for Cellular Analysis

16:00 to 16:20

**Ingrid Fritsch** (Department of Chemistry and Biochemistry, University of Arkansas, Fayetteville, USA), Foysal Khan, Aaron Nicholson, Joshua Hutcheson, Courney Hunter, Amy Powless, Timothy Muldoon

Platforms for Chemical Analysis Interfaced with Redox Magnetohydrodynamic Microfluidics

16:20 to 16:40

Coffee Break

16:40 to 17:20 Keynote

Susan Lunte (Ralph N. Adams Institute for Bioanalytical Chemistry, University of Kansas, Lawrence, USA)
Electrochemical Detection Strategies for Microchip Electrophoresis

#### 17:20 to 17:40 Invited

**Laurent Thouin** (*Chemistry Department, Ecole Normale Superieure, Paris, France*), Thomas Abadie, Catherine Sella, Christian Amatore

Electrochemical Detection of Droplet Contents in Microfluidic Devices: Chronoamperometric Analysis of Plugs

#### 17:40 to 18:00

**Fethi Bedioui** (*UTCBS*, *Chimie ParisTech/CNRS*, *Paris*, *France*), Gerson Duarte Junior, Abdul Ghani Ismail, Anne Varenne, Sophie Griveau, Fanny d'Orlyé, Alberto Fracassi da Silva, Wendell Coltro

Development of an Electrophoresis Microchip Coupled to Amperometry for the Analysis of Nitrosothiols

#### 18:00 to 18:20 Invited

**Margitta Uhlemann** (*Chemistry of Functional Materials, IFW-Dresden, Dresden, Germany*), Veronika Haehnel, Foysal Z. Kahn, Jörg König, Gerd Mutschke, Christoph Konczak, Heike Schlörb, Ingrid Fritsch

Combining magnetic forces for contactless manipulation of fluids and electrochemical detection in highly integrated microfluidic systems

#### 18:20 to 18:40

**Xuegeng Yang** (Institute of Fluid Dynamics, Helmholtz-Zentrum Dresden-Rossendorf (HZDR), Dresden, Germany), Gerd Mutschke, Marek Wojnicki, Piotr Zabinski

Microfluidic Experiments on Enrichment of Paramagnetic Metal Ions in Aqueous Solutions by Applying Inhomogeneous Magnetic Fields

# S04 Bioelectrochemistry without Borders

#### Room: 556B

Chaired by: Sean Elliott and Kenji Kano

#### 14:00 to 14:40 Keynote

Sean Elliott (*Chemistry, Boston University, Boston, USA*), Pierre Ceccaldi, Kai Schuchmann, Volker Müller Probing the Electrocatalysis and Internal "Wiring" of the Hydrogen Dependent CO<sub>2</sub> Reductase

#### 14:40 to 15:00

Nicolas Plumeré (Center for Electrochemical Sciences, Ruhr University Bochum, Bochum, Germany)
Redox Matrices for Redox Bio-Catalysts - Film Thickness and Film Thickness Distribution

#### 15:00 to 15:20

**Sidney Aquino Neto** (*Department of Chemistry, University of Sao Paulo, Ribeirao Preto, Brazil*), Rodrigo Da Silva, Ross Milton, Adalgisa De Andrade, Shelley Minteer

Enhanced Bioelectrocatalytic Reduction of Oxygen Using Hybrid Biocathodes Containing Anthracene-modified MWCNTs Decorated with  $\mathrm{Ni_{90}Pd_{10}}$  Nanoparticles

#### 15:20 to 15:40

**Philip Bartlett** (*Chemistry*, *University of Southampton*, *Southampton*, *United Kingdom*), Firas Al-Lolage, Marta Meneghello, Su Ma, Roland Ludwig

Direct and Mediated Electrochemistry of Immobilized Cellobiose Dehydrogenase

#### 15:40 to 16:00

**Filipa Gomes** (*Chemistry*, *REQUIMTE/LAQV/UCIBIO*, *Porto*, *Portugal*), Luísa B. Maia, Maria João Ramalho, Maria Carmo Pereira, Isabel Moura, Cristina Delerue-Matos, José J.G. Moura, Simone Morais

Nitric Oxide Reductase Based-Biosensor Modified with Liposomes and Gold Nanoparticles for Nitric Oxide Detection

16:00 to 16:20

**Masaru Kato** (Faculty of Environmental Earth Science, Hokkaido University, Sapporo, Japan), Shogo Nakagawa, Takehiko Tosha, Kou Nakata, Ichizo Yagi

Mechanistic Insights into Nitric Oxide Reduction Catalyzed by Bacterial Nitric Oxide Reductase

16:20 to 16:40

Coffee Break

16:40 to 17:00

**Kamrul Hasan** (Department of Chemistry and Materials Science & Engineering, University of Utah, Salt Lake City, USA), Tao Wang, Matteo Grattieri, Ross Milton, Shelley Minteer

Enhanced Microbial Electrocatalysis with Naphthoquinone Redox Polymer Modified Electrodes

17:00 to 17:20

Alanah Fitch (Chemistry and Biochemistry, Loyola University of Chicago, Chicago, USA), Milomir Suvira, Aisha Alshahrani, Reem Alshehri

Real time monitoring of the flavin gate in the ETC of Shewanella MR-1 by planar waveguide experiments

17:20 to 17:40

Reiho Yasujima (Applied Chemistry, Tokyo University of Science, Tokyo, Japan), Kengo Yasueda, Tatsuo Horiba, Shinichi Komaba

Multi-Enzyme Modified Bioanode Utilizing Maltose as Fuel

17:40 to 18:00

**Ross Milton** (*Chemistry*, *University of Utah*, *Salt Lake City*, *USA*), Rong Cai, Sofiene Abdellaoui, Donal Leech, Antonio L. De Lacey, Marcos Pita, Shelley Minteer

Bioelectrochemical Haber-Bosch Process: Coupling Hydrogenase and Nitrogenase to Create an Ammonia-Producing  $H_2/N_2$  Fuel Cell

18:00 to 18:20

**Lital Alfonta** (*Life Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel*), Orr Schlesinger, Alon Szczupak, Lin Xia

Redox Enzymes Engineering Using Synthetic Biology and Synthetic Chemistry

#### 18:20 to 18:40 Invited

**Petra Hellwig** (*Chemistry, University of Strasbourg, Strasbourg, France*), Frederic Melin, Sinan Sabuncu, Anton Nikolaev, Sylvia Choi, Thorsten Friedrich, Robert B. Gennis

The catalytic reaction of proteins from the respiratory chain immobilized on gold nanoparticles studied by bioelectrochemistry and vibrational spectroscopies

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

#### Room: Ballroom A

Chaired by: Brett Lucht

#### 14:00 to 14:40 Keynote

**Yongyao Xia** (Department of Chemistry, Institute of New Energy, Fudan University, Shanghai, China) Li<sub>2</sub>TiSiO<sub>5</sub>: A Low Potential and Large Capacity Ti-Based Anode Material for Li-Ion Batteries

#### 14:40 to 15:00

**Brett Lucht** (*Chemistry, University of Rhode Island, Kingston, USA*), Taeho Yoon, Bharathy Parimalam Generation and evolution of materials in the anode Solid Electrolyte Interphase (*SEI*) of lithium ion batteries

#### 15:00 to 15:20

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

Unraveling the Ageing Phenomena in NCM Based Cells

#### 15:20 to 15:40

**Minoru Inaba** (Department of Molecular Chemistry and Biochemistry, Doshisha University, Kyotanabe, Japan), Yusuke Shimizu, Ryo Matsumoto, Ziyang Cao, Michihiko Hashinokuchi, Takayuki Doi

Dilution of Concentrated Electrolyte Solutions for High Voltage Cathode Materials

#### 15:40 to 16:00

**Christina Lampe-Onnerud** (*Cadenza Innovation, Inc., Wilton, USA*), Jay Shi, Per Onnerud, Jason Street, Gary Gayman, Ahmad Pesaran

Novel Lithium-ion Cell Architecture

#### 16:00 to 16:20

Masashi Ishikawa (Department of Chemistry and Materials Engineering, Kansai University, Suita, Japan), Yukiko Matsui, Satoshi Uchida, Masaki Yamagata

Sulfur-Microporous Carbon Composite Positive Electrode for Rechargeable Li/S Batteries

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00 Invited

**Vincent Battaglia** (Energy Storage and Distributed Resources, LBNL, Berkeley, USA), Yanbao Fu, Fuduo Ma, Ravi Prasher

Electrode Fabrication: Thick Electrodes from Slurry to Laminate

#### 17:00 to 17:20

**Christoph Bolli** (*Electrochemistry Laboratory, Paul Scherrer Institut, Villigen, Switzerland*), Aurélie Guéguen, Manuel Mendez, Erik J. Berg

In Situ Monitoring of F- Formation in Lithium Ion Batteries by OEMS

#### 17:20 to 17:40 Invited

**Yo Kobayashi** (Materials Science Research Laboratory, Central Research Institute of Electric Power Industry, Yokosuka, Japan)

Stability evaluation of Li-ion batteries by forced destruction system

#### 17:40 to 18:00

**Michael Lowe** (Core R&D - Analytical Sciences, The Dow Chemical Company, Midland, USA), Joo Kang, Michael Behr, Wenjuan Liu, Koichi Numata

In-Operando Characterization of Structural and Chemical Changes in Layered Oxide Cathodes

18:00 to 18:20

**Jong-Sung Yu** (*Energy Systems Engineering*, *DGIST*, *Daegu*, *Korea*), Chunfei Zhang, Tong-Hyun Kang Novel 3D nano-graphene-functionalized silicon anode for lithium ion battery with superior cycle stability and rate capability

#### 18:20 to 18:40 Invited

**John Muldoon** (Materials Research Department, Toyota Research Institute of North America, Ann Arbor, USA)
Magnesium Battery: The Untold Story

# S06 Fuel Cells and Electrolyzers

# Room: Ballroom B

Chaired by: Katsuyoshi Kakinuma and Karen Swider-Lyons

#### 14:00 to 14:40 Keynote

**Karen Swider-Lyons** (*Chemistry, U.S. Naval Research Laboratory, Washington, USA*), Yannick Garsany Challenges in the accurate measurement of oxygen reduction electrocatalyst activity by RDE and in CCMs

#### 14:40 to 15:00

Maria Daletou (Institute of Chemical Engineering Sciences, FORTH-ICE/HT, Patras, Greece), Eirini Zagoraiou, Labrini Sygellou, Stylianos Neophytides

Highly and atomically dispersed Pt based catalysts - Tuning the electrocatalytic activity

#### 15:00 to 15:20

**Isaac Martens** (*Chemistry, University of British Columbia, Vancouver, Canada*), Jakub Drnec, David Wilkinson, Dan Bizzotto

In-situ X-ray Diffraction of Hydrogen Fuel Cell Cathodes

#### 15:20 to 15:40

**Fabien Labbe** (PERSEE, Centre Procedes, Energies Renouvelables et Systemes, MINES ParisTech, PSL Research University, Sophia Antipolis Cedex, France), Yasser Ahmad, Belen Molina-Concha, Katia Guerin, Marian Chatenet, Rudolf Metkemeijer, Sandrine Berthon-Fabry

Tin Dioxide Coated Carbon Materials for Extended Lifetime of Cathodic Electrocatalysts for PEMFC

#### 15:40 to 16:00

**Katsuyoshi Kakinuma** (Fuel Cell Nanomaterials Center, University of Yamanashi, Kofu, Japan), Mizuki Hayashi, Akihiro Iiyama, Makoto Uchida

 $\begin{tabular}{ll} Pt and PtCo Alloy Catalysts Supported on SnO_2 Catalysts with Fused-Aggregate Network Structure for PEFC Cathodes \\ \end{tabular}$ 

#### 16:00 to 16:20

Yanyan Wang (Department of Chemistry, Georgetown University, Washington, USA), YuYe J. Tong Iodine-stabilized PtCo/C as Highly Stable and Active Electrocatalyst for Oxygen Reduction Reaction

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00

Gustav Sievers (Department of Chemistry, University of Copenhagen, Copenhagen, Denmark), Anders W. Jensen, Jonathan Quinson, Alessandro Zana, Mehtap Oezaslan, Jacob J.K. Kirkensgaard, Jan Rossmeisl, Antje Quade, Volker Brueser, Matthias Arenz

Nanoporous Pt Networks merge High Specific Activity with High Dispersion

#### 17:00 to 17:20

**Laetitia Dubau** (*LEPMI*, *CNRS*, *Grenoble*, *France*), Jaysen Nelayah, Raphael Chattot, Tristan Asset, Pierre Bordet, Jakub Drnec, Frederic Maillard

Implementing Structural Disorder as a Promising Direction to Improve the Stability of PtNi/C Nanoparticles

#### 17:20 to 17:40

**Raphael Chattot** (*LEPMI*, *University Grenoble Alpes*, *Grenoble*, *France*), Olivier Lebacq, Tristan Asset, Pierre Bordet, Jakub Drnec, Alain Pasturel, Laetitia Dubau, Frederic Maillard

Beyond Alloying Effects: Microstrain-Induced Modification of Catalytic Sites Reactivity on Various PtNi/C Nanostructures: Application to the Oxygen Reduction and Alcohool Oxidation Reactions

#### 17:40 to 18:00

**Tristan Asset** (*LEPMI*, *University of Grenoble Alpes*, *Grenoble*, *France*), Raphael Chattot, Laetitia Dubau, Nathalie Job, Frederic Maillard

Controlling the Morphology, Activity and Durability of PtNi Porous Hollow Nanoparticles through the Nature of their Carbon Support

#### 18:00 to 18:20

**Jessica Chamier** (HySA Catalysis, Chemical Engineering, University of Cape Town, Cape Town, South Africa), Markus Kruger, Jonathan Itota, Shiro Tanaka

Electrospun ceramic nanofibers as catalyst support materials – let's get practical

# S07 Supercapacitors from Materials and Processes to Applications

#### Room: 557

Chaired by: Eider Goikolea and Francesca Soavi

#### 14:00 to 14:20 Invited

**Thierry Brousse** (*Institut des Materiaux Jean Rouxel (IMN*), University of Nantes - CNRS, Nantes, France), Nicolas Goubard-Bretesché, Olivier Crosnier, Camille Douard, Antonella Iadecola, Stéphanie Belin, Christophe Payen, Frédéric Favier, Kazuaki Kisu, Katsuhiko Naoi

Evidence of pseudocapacitive behavior on FeWO<sub>4</sub> by ex-situ, in-situ and operando spectroscopies

#### 14:20 to 14:40 Oronzio and Niccolò De Nora Young Author Prize

**Lu-Yin Lin** (Chemical Engineering and Biotechnology, National Taipei University of Technology, Taipei, Taiwan), Wei-Lung Hong

Material Category and Sequence Effects of Core-Shell Structures on Morphology and Electrocapacitive Performance of Energy Storage Electrodes

#### 14:40 to 15:00 Invited

**Tyler Mathis** (Materials Science and Engineering, Drexel University, A. J. Drexel Nanomaterials Institute, Philadelphia, USA), Zifeng Lin, Pierre-Louie Taberna, Patrice Simon, Yury Gogotsi

Two-Dimensional (2D) Transition Metal Carbides, Nitrides, and Carbonitrides (MXenes) as Electrode Materials for High-Performance Supercapacitors

15:00 to 15:20

Malaya Kumar Sahoo (Chemistry, IIT Madras, Chennai, India)

Fabrication of nitrogen doped mesoporous carbon@Ni $\mathrm{Co_2S_4}$  arrays on nickel foam as an advanced charge storage material

15:20 to 15:40

**Teng Wang** (Science and Engineering Faculty, Queensland University of Technology, Brisbane, Australia), Hongxia Wang, John Bell

2-methylimidazole-derived Ni-Co Layered Double Hydroxide Nanosheets for Hybrid Supercapacitors

15:40 to 16:00

**Qiang Gao** (Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, USA), Jeremy Come, Michael Naguib, Stephen Jesse, Yury Gogotsi, Nina Balke

Tracking ion intercalation into layered materials on the nanoscale

16:00 to 16:20

Changlong Xiao (School of Chemistry, Monash University Clayton Campus, Melbourne, Australia), Xinyi Zhang, Douglas MacFarlane

Highly Ordered Mesoporous MnCo<sub>2</sub>O<sub>4</sub> with Cubic Iα3d Symmetry for Electrochemical Energy Storage

16:20 to 16:40

Coffee Break

16:40 to 17:20 Keynote

**Bruce Dunn** (*Materials Science and Engineering, University of California, Los Angeles, Los Angeles, USA*)

Novel Architectures for Future Hybrid Supercapacitors

17:20 to 17:40

**Bouchra Asbani** (*Chemistry, Institute of Materials Jean Rouxel, Nantes, France*), Camille Douard, Etienne Eustache, Thierry Brousse, Christophe Lethien, Jean Le Bideau

All solid state on chip interdigitated micro-supercapacitors fabricated on 3D silicon wafer

17:40 to 18:00

**Baptiste Pibaleau** (*PCM2E*, *Université François Rabelais*, *Tours*, *France*), Emeline Charon, Mathieu Pinault, Martine Mayne-L'Hermite, Fouad Ghamouss, François Tran-Van

MnO<sub>2</sub>/VACNT nanostructured electrodes for supercapacitors

18:00 to 18:20

Rinky Sha (Electrical Engineering, IIT, Hyderabad, Kandi, India), Sushmee Badhulika

Binder free platinum nanoparticles decorated graphene-polyaniline composite for high performance supercapacitor application

18:20 to 18:40

Thomas Vignal (LPPI, University of Cergy-Pontoise/Nawatechnologies, Neuville sur Oise, France), Léa Darchy, Aurelien Boisset, Jérémie Descarpentries, Harald Hauf, Quentin Mestre, Mathieu Pinault, Martine Mayne-L'Hermite, Philippe Banet, Pierre-Henri Aubert

P3MT/VACNT/Al Nanocomposites Electrodes with High Capacitance for Supercapacitor

# S09 Ionic Liquids as Media for Electrochemical Synthesis

# Room: 556A

Chaired by: Gery Stafford and Mikito Ueda

#### 14:00 to 14:20

**Thomas Engemann** (*Electrochemistry and Electroplating Group, Technische Universitaet Ilmenau, Ilmenau, Germany*), Anna Endrikat, Rene Boettcher, Adriana Ispas, Ralf Peipmann, Andreas Bund

Electrochemical deposition of reactive metals and their alloys from ionic liquids

#### 14:20 to 14:40

**Yongde Yan** (Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Debin Ji, Milin Zhang, Yun Xue, Pu Wang, Taiqi Yin

Preparation of Al-RE Intermetallic Compound Whisker in LiCl-KCl Melts by Molten Salt Electrolysis

#### 14:40 to 15:00

Cedric Lousteau (Departement de Chimie, Universite de Montreal, Montreal, Canada), Daniel Guay, Lionel Roue, Dominic Rochefort

Characterization of Gallium Electrodeposition in PP<sub>13</sub>TFSI and N<sub>1114</sub>TFSI Ionic Liquids

#### 15:00 to 15:20

Carlos Pereira (Chemistry and Biochemistry, Faculty of Sciences Porto University, Porto, Portugal), Ana T.S.C. Brandão, Nuno M. Pereira, A. Fernando Silva

Tin and alloys electrodeposition in choline chloride-based ILs- nucleation studies and surface analysis

#### 15:20 to 15:40

Andreas Bund (Fakultaet fuer Elektrotechnik und Informationstechnik, Technische Universitaet Ilmenau, Ilmenau, Germany), Ludwig Asen, Adriana Ispas, Sladjana Martens, Lukas Seidl, Ralf Peipmann, Thomas Engemann, Anna Endrikat, Oliver Schneider

Ultrasound Supported Electrodeposition of Tantalum

#### 15:40 to 16:20 Keynote

Gery Stafford (Materials Measurement Laboratory, NIST, Gaithersburg, USA)

The Structure of Aluminum Alloys Electrodeposited from Chloroaluminate Ionic Liquids

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00

Adriana Ispas (Chemistry, Technische Universitaet Ilmenau, Ilmenau, Germany), Elisabeth Wolff On Electrodeposition of Ruthenium in Room Temperature Ionic Liquids

#### 17:00 to 17:20

**Veronika Zinovyeva** (*Chemistry Department, IPN-Orsay, University of Paris-Sud, Orsay, France*), Celine Cannes, Gerardo Hernandez-Sanchez, François Brisset, Claire Le Naour, Raul Ortega-Borges

Simple Electrochemical Preparation of Rare Earth Nanostructured Thin Films in Room Temperature Ionic Liquids

#### 17:20 to 17:40 Invited

**Mikito Ueda** (Faculty of Engineering, Hokkaido University, Sapporo, Japan), Shiori Honda, Hisayoshi Matsushima

Output Characteristics of Al-Cl<sub>2</sub> Cell in EMIC-AlCl<sub>3</sub> Ionic Liquid

#### 17:40 to 18:00 Invited

**Oldamur Holloczki** (Mulliken Center for Theoretical Chemistry, University of Bonn, Bonn, Germany) Ion pairing in ionic liquids

18:00 to 18:20

Richard Kinch (Department of Chemistry, University of Puerto Rico, Rio Piedras Campus, San Juan, Puerto Rico), Carlos Cabrera

Electrochemical studies of CO<sub>2</sub> reduction in 1-butyl-3-methylimidazolium chloride

#### 18:20 to 18:40

Maxime Balva (Institut Jean Lamour, CEA Tech Lorraine, Universite de Lorraine, Metz, France), Sophie Legeai, Nathalie Leclerc, Emmanuel Billy, Eric Meux

Coupling of electroleaching/electrodeposition of platinum in ionic liquid melts: application to the recycling of platinum from spent proton exchange membrane fuel cells

# S10 Corrosion: Fundamentals, Passivity, and Prevention

#### Room: 552A

Chaired by: Vincent Vivier

#### 14:00 to 14:20

Benoit Gwinner (Den-SCCME, CEA, Université Paris-Saclay, Gif-sur-Yvette, France), Marie Benoit, Barbara Laurent, Christian Bataillon, Nathalie Larabi-Gruet, Frédéric Miserque, Kevin Ogle, Carlos Sanchez-Sanchez, Bernard Tribollet, Vincent Vivier

Discussion on the Relationship between Passivity and Reactivity of Metals

#### 14:20 to 14:40

Masatoshi Sakairi (Faculty of Engineering, Hokkaido University, Sapporo, Japan), Ryo Sasaki, Kyohei Otani, Akira Kaneko

Effect of metal cations in model tap water on structure of passive film formed on aluminum alloys

#### 14:40 to 15:00

**Nadine Pebere** (*CIRIMAT*, *ENSIACET*, *Toulouse*, *France*), Samuel Leleu, Bertrand Rives Investigation on the stability of oxide films formed on magnesium rare-earth alloys

#### 15:00 to 15:20

**Aneta Nemcova** (School of Materials, The University of Manchester, Manchester, United Kingdom), Peter Skeldon, Aleksey Yerokhin

Anodic Films on Mg Alloys Formed in Glycerol/Fluoride Electrolyte

#### 15:20 to 15:40

**Tse-Ming Chiu** (*Materials Science and Engineering, Texas A&M University, College Station, USA*), Mohamad Mahmoudi, Alaa Elwany, Homero Castaneda

Repassivation and Micro-phase Separation of Ti6Al4V Alloy Manufactured by Selected Laser Melting

#### 15:40 to 16:00

**Carlos Valero-Vidal** (*Advanced Light Source*, *Lawrence Berkeley National Laboratory*, *Berkeley*, *USA*), Marco Favaro, Yi Yu, Ethan J. Crumlin

Corrosion Reaction Mechanism of the Ti/SBF in Presence of Fluorides Determined under *Operando* by Means of Ambient Pressure XPS

#### 16:00 to 16:20

Eliane Sutter (Laboratoire Interfaces et Systemes Electrochimiques, UPMC /CNRS, Paris, France), Mai Tran, Bernard Tribollet

The Complex-Capacitance Representation: A Convenient Way to Follow *in Situ* Modifications of the Thickness of an Oxide Layer during Electrochemical Polarization

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:20 Keynote

**Robert Kelly** (Materials Science and Engineering, University of Virginia, Charlottesville, USA), Chao Liu, Jay Srinivasan, Marybeth Parker, Russell Repassky

Modeling of Localized Corrosion under Atmospheric Conditions: Cathodic Limitations

#### 17:20 to 17:40 Invited

**Hongbo Cong** (Chemical and Biomolecular Engineering, Dept., The University of Akron, Akron, USA), Shengxi Li, Nick Birbilis

Insight into the Origin of Crevice Corrosion of Magnesium

#### 17:40 to 18:00

Emilie Lebon (*CIRIMAT*, *ENSIACET-INP*, *Toulouse*, *France*), Lisa Rivière, Nicolas Caussé, Nadine Pebere Investigation by local electrochemical impedance spectroscopy and Raman spectroscopy of the corrosion inhibition of 2024 aluminum alloy

#### 18:00 to 18:20

**Benny Wouters** (*Electrochemical and Surface Engineering, Vrije Universiteit Brussel, Brussels, Belgium*), Lucia Fernandez Macia, Marc Raes, Herman Terryn

Efficient pitting and breakdown of passivity for the AC electrograining of aluminium

#### 18:20 to 18:40

**Sergio Lorenzi** (Engineering and Applied Science, University of Bergamo, Dalmine (BG), Italy), Marina Cabrini, Tommaso Pastore, Cristian Testa, Flaviana Calignano, Diego Manfredi, Sara Biamino, Mariangela Lombardi, Paolo Fino

Electrochemical Study of the Corrosion Resistance of the AlSi10Mg Alloy Obtained by Means of LPBF

# S11 Synthesis and Applications of Electrochemically Active Materials

#### Room: 553

Chaired by: Sandro Cattarin and Joanna Dolinska

#### 14:00 to 14:40 Keynote

Yasuaki Einaga (Chemistry, Keio University, Yokohama, Japan)

Recent Development on Electrochemical Application on Boron-doped Diamond Electrodes

#### 14:40 to 15:00

Marek Mooste (Institute of Chemistry, University of Tartu, Tartu, Estonia), Elo Kibena-Põldsepp, Leonard Matisen, Kaido Tammeveski

Oxygen Reduction on Glassy Carbon Grafted with Anthraquinone-Modified Graphene and Multiwall Carbon Nanotubes

#### 15:00 to 15:20 Invited

**Csaba Janáky** (Department of Physical Chemistry and Materials Science, University of Szeged, Szeged, Hungary), Andras Varga, Gergely Samu

Structural Engineering of Inorganic Oxide Semiconductor Photoelectrodes

15:20 to 15:40

**Matthew Lawrence** (School of Chemistry, University of Brimingham, Birmingham, United Kingdom), Matthew Kromer, Alex Yanson, Joaquin Rodriguez-Lopez, Rodriguez Paramaconi

Tuning the size and shape of novel nanoscale metal oxide photocatalysts using the cathodic corrosion method

15:40 to 16:00

**Tomasz Rebis** (Faculty of Chemical Technology, Poznan University of Technology, Poznan, Poland), Grzegorz Milczarek

Advanced Electrochemically Active Materials Based on Lignosulfonates

16:00 to 16:20

Ping Yu (Institute of Chemistry, Chinese Academy of Sciences, Beijing, China)

Electroactive Supramolecular Ionic Material for Biosensing and Electronic Device

16:20 to 16:40

Coffee Break

16:40 to 17:00 Invited

**Sandro Cattarin** (*ICMATE*, *CNR*, *Padova*, *Italy*), Luca Mattarozzi, Nicola Comisso, Rosalba Gerbasi, Paolo Guerriero, Marco Musiani, Lourdes Vázquez-Gómez, Enrico Verlato

Electrodeposition of High Porosity Cu Alloy Layers and their Use as Efficient Electrodes for Nitrate Reduction in Alkali

17:00 to 17:20

Soledad Bollo (Pharmacological Sciences, University of Chile, Santiago, Chile)

Synergic electrocatalysis based on Co<sub>2</sub>SnO<sub>4</sub>/graphene nanocomposite for hydrogen peroxide reduction

17:20 to 17:40

**Fu-Ren Xiao** (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Ying-Chih Liao Optimization of Composite Sensing Material Properties for Simultaneous Temperature and Humidity Monitoring

17:40 to 18:00

Federico Tasca (Departmento de Quimica de los Materiales, Universidad de Santiago de Chile, Santiago, Chile), Karinna Neira, Jose H. Zagal, José Marco, Walter Orellana

Comparison of O<sub>2</sub> Reduction in Acid Medium on Iron Phthalocyanines Axially Coordinated either to Pyridine or to Nitropyridine Anchored on Carbon Nanotubes

18:00 to 18:20

**Kenneth Hernandez** (*Chemistry, University of Illinois at Urbana-Champaign, Urbana, USA*), Mark Burgess, Etienne Chennard, Jeffrey Moore, Joaquin Rodriguez-Lopez

Enhancing Charge Transport in Redox Active Polymers Through Molecular Design

18:20 to 18:40

**Keisuke Natsui** (*Department of Chemistry, Keio University, Yokohama, Japan*), Norihito Ikemiya, Mai Tomisaki, Hitomi Iwakawa, Kazuya Nakata, Yasuaki Einaga

Electrochemical Conversion of CO<sub>2</sub> into Formic Acid on Boron-Doped Diamond Electrodes

# S12 Electrochemical Technology for solving 21st Century Challenges

## Room: 555B

Chaired by: Karel Bouzek and Javier Llanos

## 14:00 to 14:20 Invited

**Antoine Allanore** (*Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, USA*) Electrochemical Engineering of the Molten State: A Path toward Sustainability?

## 14:20 to 14:40

**Céline Bonnaud** (*LEPMI*, *Grenoble Institute of Technology*, *Grenoble*, *France*), Nicolas Papaiconomou, Eric Chainet, Isabelle Billard

Recycling the Rare Earth Elements from Permanent Magnets by Electrochemistry in Ionic Liquid

## 14:40 to 15:00

**Tsuyoshi Hoshino** (Fusion Energy Research and Development Directorate, QST, Rokkasho-mura, Kamikita-gun, Japan)

Lithium-6 Enrichment using Innovative Electrodialysis Method with Lithium Ionic Superconductor

## 15:00 to 15:20

**Erika Bustos** (*Science, Centro de Inv. y Des. Tecnológico en Electroquímica S.C., Pedro Escobedo, Mexico*), Gustavo Acosta, Rosa Alhelí Herrada, Juan Manríquez

Stimulation by Electric Fields of the Germination and Growth of Different Species of Plants Using  $IrO_2$ - $Ta_2O_5$  | Ti Electrodes

#### 15:20 to 15:40

**Dongping Zhan** (Department of Chemistry, Xiamen University, Xiamen, China), Lianhuan Han, Jie Zhang, Lin Zhang, Junhui Lai, Lan Geng

Electrochemical Micro/Nano-Machining

#### 15:40 to 16:00

**Ting He** (Energy and Environment Science and Technology, Idaho National Laboratory, Idaho Falls, USA), Dong Ding, Yunya Zhang, Wei Wu

Electrochemical Activation of Natural Gas Liquids in Petrochemical Manufacturing

## 16:00 to 16:20

 $\textbf{Alan Snedden} \ (\textit{Electrochemistry}, \textit{DFM A/S}, \textit{Kongens Lyngby}, \textit{Denmark}), \textbf{Carsten Thirstrup}$ 

Traceable High Precision Biofuel Conductivity Measurement

## 16:20 to 16:40

Coffee Break

## 16:40 to 17:00

**Kameron Conforti** (Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA), Sven Schlumpberger, Martin Bazant

Shock Electrodialysis and Shock Electrodeposition for Sustainable Water Treatment

## 17:00 to 17:20

**Luis Godínez** (*Electrochemistry*, *CIDETEQ*, *Queretaro*, *Mexico*), Dennys Fernandez, Orlando García, Kalaumari Mayoral, Irma Robles

Hydroxyl Radical Effect on Helminth Ova

## 17:20 to 17:40

**Hlamulo Makelane** (Department of Chemistry, University of the Western Cape, Cape Town, South Africa), Emmanuel Iwuoha

AC Voltammetric Sensing of Wastewater Polyaromatic Hydrocarbons

#### 17:40 to 18:00

**Miguel Sandoval** (Departamento de Ingeniería Química, Universidad de Guanajuato, Guanajuato, Mexico), José Luis Nava, Rosalba Fuentes-Ramírez

Arsenic and Fluoride Removal from Groundwater by Electrocoagulation Process in a Continuous Filter-Press Multistack Reactor

#### 18:00 to 18:20

**Kyle Smith** (*Mechanical Science and Engineering, University of Illinois at Urbana-Champaign, Urbana, USA*), Maarten Biesheuvel, Slawomir Porada, Aniruddh Shrivastava

Increasing Salt Adsorption Capacity Using Prussian Blue Analogue Electrodes for Cation Intercalation Desalination

## 18:20 to 18:40 ISE-Elsevier Prize for Green Electrochemistry

**Javier Llanos** (Department of Chemical Engineering, University of Castilla-la Mancha, Ciudad Real, Spain), Alexandra Raschitor, Martin Muñoz, Pablo Cañizares, Manuel Andres Rodrigo

Development of Concentration Strategies for the Improvement of the Efficiency of Electrochemical Degradation Technologies

## S14 Let there be Light in Electrochemistry:

From Electrogenerated Chemiluminescence to Fluorescence

## Room: 551A

Chaired by: Pawel Krysinski

## 14:00 to 14:40 Keynote

**Guobao Xu** (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, CAS, Changchun, China), Liming Qi, Wenjing Qi, Ling Zhang, Lianzhe Hu, Xiaoqing Liu, Jianming Zhao, Zhongyuan Liu

New Materials, Detection Strategies and Devices for Electrochemiluminescent Analysis

## 14:40 to 15:00

**Federico Polo** (Experimental and Clinical Pharmacology, National Cancer Institute - CRO, Aviano, Italy), Fabio Rizzo, Flavio Maran

Fine-Tuning of Electrochemiluminescence and Photoluminescence in Bifunctional Organic Dyes

## 15:00 to 15:20 Invited

Shanlin Pan (Department of Chemistry, The University of Alabama, Tuscaloosa , USA)

Observation of Local Redox Events at Individual Plasmonic Nanoparticles Using Dark Field and Electrogenerated Chemiluminescence Microscopy Methods

## 15:20 to 15:40

Giovanni Valenti (Chemistry G. Ciamician, University of Bologna, Bologna, Italy), Alice Soldà, Adrian Ostric, Arturo Juzgado, Stefania Rapino, Alejandro Criado, Giulio Fracasso, Giamaica Conti, Maurizio Prato, Francesco Paolucci

Carbon nanomaterial for robust and highly sensitive electrochemiluminescent detection of prostate cancer biomarker

## 15:40 to 16:00 Invited

**Jun-Jie Zhu** (School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China) Electrochemiluminescence Resonance Energy Transfer-Based Biosensors

## 16:00 to 16:20

**Frederique Deiss** (Department of Chemistry & Chemical Biology; INDI, IUPUI, Indianapolis, USA), Henok Baye Habtamu

Detection of Bacteria by Electrochemiluminescence

#### 16:20 to 16:40

Coffee Break

## 16:40 to 17:20 Keynote

**Robert Forster** (National Centre for Sensor Research, Dublin City University, Glasnevin, Ireland)
3D Electrodes for Wireless, Multiplexed Detection in ECL

#### 17:20 to 17:40 Invited

Jing-Juan Xu (Department of Chemistry, Nanjing University, Nanjing, China)

Electrochemiluminescence Ratiometry for Bioanalysis

## 17:40 to 18:00

**Neso Sojic** (*ISM-ENSCBP, University of Bordeaux, Pessac, France*), Anne de Poulpiquet, Beatriz Diez-Buitrago, Laurent Bouffier, Stéphane Arbault, Alexander Kuhn

From Light-Emitting Bioswimmers to 3D Electrogenerated Chemiluminescence

## 18:00 to 18:20

**Jing Li** (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Science, Changchun, China), Xiaowei Zhang, Erkang Wang

Conductivity Sensing Based on the Bipolar Electrode

## 18:20 to 18:40 Invited

**Hua Cui** (Department of Chemistry, University of Science and Technology of China, Hefei, China), Guixin Li, Xiuxia Yu, Danqing Liu, Xiaoying Liu

Highly Electrochemiluminescent Graphene Bilayer Hybrids for 2,4,6-Trinitrotoluene Sensing

# S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

## Room: 552B

Chaired by: Pawel J. Kulesza and James Noel

## 14:00 to 14:20

**Robert Hillman** (Department of Chemistry, University of Leicester, Leicester, United Kingdom), Emma Palin, Karl Ryder, Rachel Sapstead, Emma Smith, Virginia Ferreira, Robert Dalgliesh, Nina-Juliene Steinke

Dynamic Structural and Compositional Characterisation of Thin Metal Films and Bilayers

## 14:20 to 14:40

**Matteo Duca** (*EMT*, *Institut National de la Recherche Scientifique*, *Varennes*, *Canada*), Nicolas Sacre, Gregor Hufnagel, Andrew Wang, Sebastien Garbarino, Andreas Ruediger, Daniel Guay

Shooting the Next Films: Focus on Preferentially-oriented Metal Alloy Electrocatalysts Prepared with Pulsed Laser Deposition

#### 14:40 to 15:00

**Robert Sacci** (*Materials Science and Technology Division, Oak Ridge Nat. Lab., Oak Ridge, USA*), Katherine van Aken, Matthew Thompson, Peter Cummings, Yuri Gagotsi, Gernot Rother

Following ion content within charged micropores of bimodal carbide-derived carbons using *in situ* small angle neutron scattering

15:00 to 15:20

**Evgeny Smirnov** (*SB ISIC LEPA, EPFL, Sion, Switzerland*), Pekka Peljo, Hubert H. Girault Marangoni Shutters and Electrovariable Nanoplasmonic

15:20 to 15:40

**Leon Jacobse** (Catalysis and Surface Chemistry, Leiden Institute of Chemistry - Leiden University, Leiden, Netherlands), Yi-Fan Huang, Marcel J. Rost, Marc Koper

Connecting adsorption site formation to nanoisland growth during the oxidative roughening of Pt(111)

15:40 to 16:00

**Aleksandar Zeradjanin** (Helmholtz-Institut Erlangen-Nürnberg, Forschungszentrum Jülich GmbH, Erlangen, Germany), Karl Mayrhofer

What is the Trigger for Hydrogen Evolution Reaction?

16:00 to 16:20

**Jakub Drnec** (Experimental Division, European Synchrotron Radiation Facility, Grenoble, France), Martin Ruge, Finn Reikowski, Björn Rahn, Francesco Carlà, Roberto Felici, Jochim Stettner, Olaf Magnussen, David A. Harrington

Oxidation and Surface Restructuring of Pt Electrodes Upon Potential Cycling and During Oxygen Reduction Reaction

16:20 to 16:40

Coffee Break

## 16:40 to 17:20 Keynote - Brian Conway Prize for Physical Electrochemistry

Marc Koper (Leiden Institute of Chemistry, Leiden University, Leiden, Netherlands)

New views on the electrochemistry of platinum

17:20 to 17:40

Xin Deng (Leiden Institute of Chemistry, Leiden University, Leiden, Netherlands), Marc Koper In Situ Electrochemical AFM Investigation of Pt Surface during Potential Cycling

17:40 to 18:00

**Federico Bella** (*Department of Applied Science and Technology, Politecnico di Torino, Turin, Italy*), Simone Galliano, Marisa Falco, Fabrizio Giordano, Anders Hagfeldt, Michael Grätzel, Guido Viscardi, Claudia Barolo, Claudio Gerbaldi

At the Electrode/Electrolyte Interface of Aqueous Solar Cells: a Photoelectrochemical and Chemometric Investigation

18:00 to 18:20

**Jian-Feng Li** (*Department of Chemistry, Xiamen University, Xiamen, China*), Jin-Chao Dong, Yao-Hui Wang, Chao-Yu Li

In Situ Raman Study of Electrochemical Reaction at Single Crystal Electrode Surfaces

18:20 to 18:40

Manuela Rueda (Physical Chemistry, University of Seville, Seville, Spain), Julia Alvarez-Malmagro, Francisco Prieto

Cytosine Adsorption on Gold Electrodes as a Function of pH. An in situ Surface-Enhanced Infrared Absorption Spectrocopy and Electrochemistry Study

# S16 Electrochemistry of Metal Clusters and Nanoparticles

## Room: 551B

Chaired by: Dongil Lee and Gangli Wang

14:00 to 14:20

**Flavio Maran** (*Chemistry, University of Padova, Padova, Italy*), Sabrina Antonello, Tiziano Dainese Electron Transfer Properties of Au25(*SR*)18 in Film and Solution

14:20 to 14:40

**Dongil Lee** (*Department of Chemistry, Yonsei University, Seoul, Korea*), Yongjin Lee, Ho Eun Seong, Sang Hyeok Im Electrocatalytic Reduction of Carbon Dioxide on Metal Nanoclusters

14:40 to 15:00

**Douglas Kauffman** (Research and Innovation Center, National Energy Technology Laboratory, Pittsburgh, USA), Dominic Alfonso, De Nyago Tafen

Ligand-Protected, Au/Cu Nanoparticles for the Electrochemical CO<sub>2</sub> Reduction Reaction

15:00 to 15:20

Wei Chen (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, CAS, Changchun, China), Xiaohui Gao, Yizhong Lu, Minmin Liu, Jian Ju, Lei Li, Xiaokun Li

Metal Nanoclusters: Synthesis, Structures and Applications in Electroanalysis and Electrocatalysis

15:20 to 15:40

**Jie He** (Department of Chemistry, University of Connecticut, Storrs, USA)

Ultrasmall Au Nanocatalysts Supported on Nitrided Carbon Supports for CO<sub>2</sub> Electrochemical Reduction

15:40 to 16:20 Keynote

Gangli Wang (Chemistry, Georgia State University, Atlanta, USA), Tanyu Wang, Jonathan Padelford, Hedi Ma Electro- Chemi- Luminescence of Au NanoClusters: EDTA Enhancement, Metal Ions Modulation and Mechanistic Improvements

16:20 to 16:40 Coffee Break

16:40 to 17:00 Invited

Yuichi Negishi (Department of Applied Chemistry, Tokyo University of Science, Tokyo, Japan)

Ligand Exchange Reactions in Thiolate-Protected Au25 Nanoclusters with Selenolates or Tellurolates: Preferential Exchange Sites and Effects on Electronic Structure

17:00 to 17:20 Invited

**David Cliffel** (*Chemistry, Vanderbilt University, Nashville, USA*), David Crisostomo Monolayer Protected Nanoparticles as SECM Mediators

17:20 to 17:40

Woojun Choi (Department of Chemistry, Yonsei University, Seoul, Korea), Kyuju Kwak, Minseok Kim, Yongjin Lee Electrocatalytic Hydrogen Production Using Molecular-like Metal Nanoclusters

17:40 to 18:00

**Nevena Ostojic** (*Chemistry*, *University of Texas at Austin*, *Austin*, *USA*), Morgan Anderson, Richard Crooks Electrocatalytic Reduction of Oxygen on Metal Nanoparticles in the Presence and Absence of Interactions with Metal-Oxide Supports

18:00 to 18:20

**T. Jane Stockmann** (*ITODYS*, *Université Paris Diderot*, *Paris*, *France*), Léo Angelé, Vitor Brasiliense, Catherine Combellas, Frédéric Kanoufi

Investigation of nanoparticle impacts at liquidlliquid, soft interfaces using ferrocene-assisted oxygen reduction reaction

# S18 Education for Electrochemistry and Electrochemical Engineering

## Room: Ballroom C

Chaired by: Lane Baker, Gerardine G. Botte, Robert Hillman and Roberto M. Torresi

14:00 to 14:20

**Mark Orazem** (*Department of Chemical Engineering, University of Florida, Gainesville, USA*), Bernard Tribollet Teaching Electrochemical Impedance Spectroscopy, 2nd Edition

14:20 to 14:40

Johna Leddy (Chemistry, University of Iowa, Iowa City, USA)

Key Concepts in Electrochemical Education: Flux, Potential Axes, and Dimensionless Parameters

14:40 to 15:00

Joaquin Rodriguez-Lopez (Chemistry, University of Illinois at Urbana-Champaign, Urbana, USA)

Jumpstarting Young Scientists into Advanced Electrochemical Concepts for Emerging Energy Challenges

15:00 to 15:20 Invited

**Gerardine G. Botte** (*Center for Electrochemical Engineering Research, Ohio University, Athens, USA*) Strategies for Sustainable Electrochemical Engineering Education

15:20 to 15:40 Invited

**Roberto M. Torresi** (*Instituto de Química, Universidade de São Paulo, São Paulo, Brazil*), Susana Cordoba de Torresi, Mauro Bertotti, Thiago Paixão

Electrochemistry Training Program in Sao Paulo: From a Local Experience to an International Program

15:40 to 16:00

**Fernando Garzon** (Chemical and Biological Engineering, CMEM, University of New Mexico, Albuquerque, USA), Vanessa Svihla, Abhaya Datye

Advancing Electrochemical Education Through FACETS

16:00 to 16:20

**Philippe Buhlmann** (*Department of Chemistry, University of Minnesota, Minneapolis, USA*), Maral Mousavi, Zahra Sohrabpour, Evan L. Anderson, Katherine Lust, David Golden, Gary Christenson Beyond Talking about Stress and Mental Health

16:20 to 16:40

Coffee Break

16:40 to 17:00

**Jorge Ibanez** (*Depto. Ing. y C. Quimicas, Universidad Iberoamericana, Mexico, Mexico*) Low Cost, Small Scale Environmental Electrochemistry Experiments

17:00 to 17:20

**Robert Hillman** (Department of Chemistry, University of Leicester, Leicester, United Kingdom), Rachel Sapstead, Ann Beresford-Laycock, Natalie Corden, Jodie Coulston

Raising Interest in Electrochemistry Through Forensic Science: Visualisation of Latent Fingerprints on Metal Surfaces

17:20 to 17:40

**Pawel J. Kulesza** (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Iwona A. Rutkowska Charge Propagation in Electroactive Materials: Diagnosis with Microelectrodes

17:40 to 18:00

Gabriel Meloni (Departamento de Quimica, Universidade de São Paulo, São Paulo, Brazil)

Cheap and accessible electrochemistry: modern fabrication tools towards electrochemistry instrumentation

18:00 to 18:20

William Mustain (Chemical & Biomolecular Engineering, University of Connecticut, Storrs, USA)
Integrating Hands-on Battery Design into a Chemical Engineering Unit Operations Laboratory

18:20 to 18:40

Lane Baker (Chemistry, Indiana University, Bloomington, USA)

Teaching Instrument Design and Construction with 3D Printers

## S19 General Session

## Room: 555A

Chaired by: John Stickney

14:00 to 14:20

Giovanni Zangari (Materials Science and Engineering, University of Virginia, Charlottesville, USA), Fu Zhao, Yin Xu

Electrodeposition of Cu-Ge Alloys from an Alkaline Electrolyte

14:20 to 14:40

Gabriela Kissling (Chemistry, University of Southampton, Southampton, United Kingdom), Ruomeng Huang, Wenjian Zhang, Mohsin Aziz, Mehrdad Alibouri, Reza Kashtiban, Philip Bartlett, Kees de Groot, Gill Reid, Andrew Hector, David Smith, Richard Beanland

Electrodeposition of Functional Nanomaterials

14:40 to 15:00

**Shinji Yae** (Department of Chemical Engineering and Materials Science, Graduate School of Engineering, University of Hyogo, Himeji, Japan), Ayano Yokoyama, Naoki Fukumuro

Influence of Adsorption of Hydrogen on Its Incorporation during Electrodeposition of Platinum

15:00 to 15:20

Salih Cihangir (Material Center, University of Leicester, Leicester, United Kingdom), Andrew P. Abbott, Karl Ryder

Super-Efficient Powder Pulse Electrodeposition for Possible Additive Manufacturing Applications

15:20 to 15:40

**Michael Schneider** (*Electrochemistry*, *Fraunhofer IKTS*, *Dresden*, *Germany*), Nora Schubert, Michal Manko, Manuel Lohrengel

Anodic Dissolution of Tungsten Carbide at High Current Densities

15:40 to 16:00

**Taiqi Yin** (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Yongde Yan

Electrochemical Properties of Praseodymium and the Formation of Ni-Pr Intermetallics in LiCl-KCl Eutectic Melts

16:00 to 16:20

S. K. Ghosh (Materials Processing and Corrosion Engineering Division, Bhabha Atomic Research Centre, Mumbai, India), V. Pachchigar, V. Kain

Uniform Zn-layer Deposition during Double Zincating on Al: Role of Nitric Acid Dissolution Post Single Zincating

16:20 to 16:40

#### 16:40 to 17:00

**Gyozo G. Lang** (Department of Physical Chemistry, Eotvos Lorand University, Institute of Chemistry, Budapest, Hungary), Noemi Kovacs, Soma Vesztergom, Maria Ujvari

Application of Dual Dynamic Voltammetry for the Interpretation of Certain Features of the Interface Stress vs Electrode Potential Curves of Gold

## 17:00 to 17:20

Nadim Darwish (Chemistry, Curtin University, Perth, Australia), Albert Aragones, Simone Ciampi, Michelle Coote, Ismael Díez-Pérez

Single-Molecule Electronics: Chemical Reactions at the Single-Molecule Level

## 17:20 to 17:40

**Eduardo Laborda** (*Department of Physical Chemistry, University of Murcia, Murcia, Spain*), Angela Molina, Jose Maria Gomez-Gil, Jose Manuel Olmos

A General Theoretical Approach to the Voltammetry of Multi-electron Transfers at Microelectrodes

## 17:40 to 18:00

Anthony O'Mullane (School of Chemistry, Physics and Mechanical Engineering, Queensland University of Technology, Brisbane, Australia), Shi-Yang Tang, Khashayar Khoshmanesh, Faegheh Hoshyargar, Jessica Crawford, Arnan Mitchell, Kourosh Kalantar-Zadeh

Electrochemistry at Liquid Metals: Sensing and Actuation

## 18:00 to 18:20

**William Araujo** (Institute of Chemistry- Department of Fundamental Chemistry, University of São Paulo, São Paulo, Brazil), Carolina Frasson, Wilson Ameku, José Silva, Lúcio Angnes, Thiago Paixão

Fabrication of Paper-based Electrochemical Devices in Flat Cardboard Using Laser Scribing Technique

Tuesday, 29 August 2017

ROOMS:	Ballroom A	Ballroom B	Ballroom C	Room 550	Room 553	Room 554	Room 557	Room 551A	Room 551B	Room 552A	Room 552B	Room 555A	Room 555B	Room 556A	Room 556B
SYMPOSIUM	Symposium 5	Symposium 6	Symposium 18	Symposium1	Symposium 11	Symposium 2	Symposium 7	Symposium 14	Symposium 7 Symposium 14 Symposium 16 Symposium 10 Symposium 15 Symposium 19 Symposium 12	Symposium 10	Symposium 15	Symposium 19	Symposium 12	Symposium 9	Symposium 4
08:15 - 09:15							Plenary Lec	Plenary Lecture: <u>Clare Grey</u> (Ballroom A)	र्फ (Ballroom A)						
09:30 - 09:50	Y. Fukunaka	S. Henning	J. F. Rubinson	N.J. Tao	V Goodei	D. Mandler	L Z	D. Waldeck	7 Zamborini	Zheludkevich	D. Bizzotto	M. A. Booth	K. Bouzek	S. Legeai	M. Ogunlesi
09:50 - 10:10	D. Chen	W. Sugimoto	A. Suroviec	P. Buhlmann	i. Gogotsi	C. Mercer	N. 110	A. Joniec	r. Zallibolilli	S. Leleu	K. Leung	O. Swiech	A. Dizon	Buess-Herman	K. Lacina
10:10 - 10:30	D. Abraham	S. Sunde	A. Russell	D. Gruebl	L. Falciola	R. Oliveira	J. Lee	Z. Ding	J. Rusling	J. Wren		F. La Mantia	S. Licht	K. Bhardwaj	L. Trnkova
10:30 - 10:45								Coffee Break							
10:50 - 11:10															
11:10 - 11:30															
11:30 - 11:50						Ca	DOSTED SESSION 2 (52 112 12) 513 114 118 118	0107 011 010	12 61 C15 C1	6					
11:50 - 12:10						٦	NOISSE VEISSION	2 (31, 311, 312,	010, 014, 010, 0.	(0)					
12:10 - 12:30															
12:30 - 12:45															
12:45 - 13:45					Council			Lunch							
SYMPOSIUM	Symposium 5	-	Symposium 6 Symposium 18	Symposium1	Symposium 11 Symposi	Symposium 15	Symposium 7	Symposium 14	Symposium 14 Symposium 16 Symposium 10 Symposium 15	Symposium 10	Symposium 15	Symposium 5	Symposium 12   Symposium 9	Symposium 9	Symposium 4
14:00 - 14:20	7 - Actor	S. Hall	M. Buzzeo	D. Han	ao I romainha	K. Krischer	D. Rochefort	2400	Vanrenterghem	S. Raiman	C. Zong	HK. Song	llocii (O	TNO	: 0
14:20 - 14:40	N. Edation	J. S. Walker	I. Fritsch	S. Cho	Nouliguez-Lop.	Pérez Gallent	F. Beguin	r. bollil	P. Peljo	J. Duarte	P. Krtil	A. Mentbayeva	r. Saviileii	1. NOI    a	J. LIDROWSKI
14:40 - 15:00	P. Guduru	C. Coutanceau	A. Fitch	A. Co	M. Marcaccio	Y. Tong	E. Goikolea	L. Fan	J. Ustarroz	B. Laurent	A. Russell	N. Bogolowski	G. G. Botte	M. Schammer	Juhaniewicz
15:00 - 15:20	C. Gerbaldi	Sabarirajan	D. Cliffel	R. Kataky	I. Irkham	Z.Li	J. Menzel	C. Garcia	S. Cordoba	S. Gill	A. C. Garcia	M. R. Palacin	J. Sollá-Gullón	T. Schoetz	S. Sek
15:20 - 15:40	Baddour-Hadj.	M. Uchida	S. Minteer	F. Zhang	V. Goncales	P. Rodriguez	S. Amara	P. Francis	C. Jackson	D. Shoesmith	C. Renault	D. Golodnitsky	E. Baranova	T. Tsuda	Matyszewska
15:40 - 16:00	Santos-Pena	A. Shum	J. Renner	A. Boika	S. Arnaboldi	E. Herrero	G. Oukali	C. Hogan	T. Ochiai	de /	R. McCreery	idead! /	A. Chen	R. M. Torresi	G. Valincius
16:00 - 16:20	F. Soavi	Y. Kakizawa	T. Moffat	J. Leddy	A. Lesch	WF. Lin	F. Su	O. Buriez	A. Galal	9 C C	Gondosiswanto	N. OUSAN	A. Marshall	PA. Martin	
16:20 - 16:40								Coffee Break							
16:40 - 17:00	E. Gucciardi	I. V. Zenyuk	K. Krischer	E. Brennan	S. Kasahara	Ferreira de Araújo	aci I V	M. Goulart	J. Stickney	D. Hansen	0.01	H. Arai	T. Turek	Pozo-Gonzalo	A. Adekunle
17:00 - 17:20	FM. Wang	V. V.	P. Atanassov	S. Campuzano	A. Zaffora	A. Cuesta	ا ا ا	F. Miomandre	Escalera López	J. Duan	L. Daniel	B. J. Hwang	J.Liu	P. Schmitz	A. Blout
17:20 - 17:40	G. Meligrana	n. Ayels	M. Rueda	E. Smotkin	N. Schorr	M. Papasizza	JA. Wang	ZQ. Tian	SL. Jian	L. F. Dick	Y. Yoon	R. Raccichini	R. Blanchard	M. A. Montiel	A. Joshi
17:40 - 18:00	L. Nation	P. Millet	R. Kelly	M. Jokinen	H. Yang	M. Figueiredo	C. Desgranges	G. Blanchard	Y. Liu	Ү. Нао	A. Grimaud	Balasubramanian	W. Shin	M. Opallo	Siepenkoetter
18:00 - 18:20	YC. Jin	Ledendecker	D. Koleva	P. F. Bolado	B. J.M. Etzold	A. Wuttig	R. Pauliukaite	L. J.C. Jeuken	W. Wang	A. Kahyarian	J. Kunze	G. Wittstock	MA. Goulet		CHao Su
18:20 - 18:40	L. Zheng	J. Hnat	Round Table		X. Su	F. Cavalca	Y. Yang			J. Creus		D. Leanza	U. Kunz		X. Xiao
18:40 - 20:00								Reception							

# Tuesday 29 August 2017 - Morning

# Plenary Lecture

## Room: Ballroom A

Chaired by: Sanjeev Mukerjee

08:15 to 09:15

Clare P. Grey (Department of Chemistry, University of Cambridge, Cambridge, United Kingdom)

Recent Developments in the Application of In- and Ex-situ NMR Spectroscopy to Batteries and Supercapacitors

# S01 New Experimental Trends in Analytical Electrochemistry

## Room: 550

Chaired by: José Manuel Pingarrón

## 09:30 to 09:50 Invited - ISE-Elsevier Prize for Experimental Electrochemistry

**Nongjian Tao** (Biodesign Center for Bioelectronics and Biosensors, Arizona State University, Tempe, USA) Imaging electrochemical current, reaction and surface stress optically

### 09:50 to 10:10 Invited

**Philippe Buhlmann** (*Department of Chemistry, University of Minnesota, Minneapolis, USA*), Adam Dittmer Biofouling of Ionophore-Doped Ion-Selective Electrode Membranes Revisited

## 10:10 to 10:30

**Daniel Gruebl** (*Institute of Energy Systems Technology (INES*), Offenburg University of Applied Sciences, Offenburg, Germany), Wolfgang G. Bessler

Electrochemical Pressure Impedance Spectroscopy (*EPIS*): A Promising Diagnostic Tool for Metal-air Batteries and Fuel Cells

## 10:30 to 10:45

# S02 Flow and Microfluidic Systems in Analytical Electrochemistry

## Room: 554

Chaired by: Lane Baker and Serge G. Lemay

09:30 to 09:50

Daniel Mandler (Institute of Chemistry, Hebrew University of Jerusalem, Jerusalem, Israel), Andrea Buffa, Yigal Erel

Carbon Nanotube Based Flow-Through Electrode: Why and How?

09:50 to 10:10

Conan Mercer (School of Chemistry, National University of Ireland Galway, Galway, Ireland), Abby Jones, Mohamed Sharafeldin, Min Shen, James Rusling, Donal Leech

Automated Microcontrolled Microfluidics with Electrochemical Prostate Cancer Diagnostics

10:10 to 10:30

Raquel Oliveira (Unité de Technologies Chimiques et Biologiques pour la Santé, PSL Research University, Chimie ParisTech, Paris, France), Laura Gonzalez-Macia, Sophie Griveau, Fanny d'Orlyé, Anne Varenne, Catherine Sella, Laurent Thouin, Fethi Bedioui

Electrochemical Surface Functionalization of Microsystems: Towards a Selective and Sensitive Analytical Platform

10:30 to 10:45

Coffee Break

## S04 Bioelectrochemistry without Borders

## Room: 556B

Chaired by: Philip Bartlett and Nicolas Plumeré

09:30 to 09:50

**Modupe Ogunlesi** (*Department of Chemistry, University of Lagos, Lagos, Nigeria*), Wesley Okiei, Omolara Akerele, Sulaiman Akanmu, Edamisan Temiye

Studies on the Effects of 4-Hydroxy- and 4-Fluoro-benzoic Acid on the Voltammetric Properties of Haemoglobin S using Cyclic Voltammetry with Bare Glassy Carbon Electrode

09:50 to 10:10

Karel Lacina (CEITEC, Masaryk University, Brno, Czech Republic), Petr Skladal

Redox-Pair-Defined Electrochemistry: Simple Biamperometric Setup for Enzymatic and Immunochemical Biosensors (and Not Only)

10:10 to 10:30

**Libuse Trnkova** (Department of Chemistry, Faculty of Science, Masaryk University, Brno, Czech Republic), Mehdi Ravandeh, Jan Hrbac

Polymer Pencil Graphite Electrode in the Study of Electrochemical Processes of Guanine Analogues

10:30 to 10:45

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

## Room: Ballroom A

Chaired by: Daniel Abraham and Robert Kostecki

## 09:30 to 09:50 Invited

**Yasuhiro Fukunaka** (Nanotechnology Research Institute, Waseda University, Tokyo, Japan), Tetsuro Nishida, Kei Nishikawa, Takayuki Homma

Dendrite Growth Rate of Li Electrodeposited in PC and Ionic Liquid

## 09:50 to 10:10

**Dejun Chen** (Department of Chemistry, Georgetown University, Washington, USA), Hamed Ataee-Esfahani, YuYe J. Tong

*In-situ* Electrochemical ATR-SEIRAS Investigation of the Solid-Electrolyte Interphase in a Lithium-ion Battery Configuration

## 10:10 to 10:30

**Daniel Abraham** (Chemical Sciences and Engineering, Argonne National Laboratory, Argonne, USA), Kaushik Kalaga, Stephen Trask

Passivation of the Silicon-Graphite Negative Electrode during Aging of Lithium-ion Full Cells

## 10:30 to 10:45

Coffee Break

# S06 Fuel Cells and Electrolyzers

## Room: Ballroom B

Chaired by: Sebastian Henning and Wataru Sugimoto

### 09:30 to 09:50

**Sebastian Henning** (*Electrochemistry Laboratory, Paul Scherrer Institut, Villigen PSI, Switzerland*), Hiroshi Ishikawa, Laura Kühn, Juan Herranz, Alexander Eychmüller, Thomas Schmidt

Durability of Unsupported Pt-Ni Aerogel Cathodes in Polymer Electrolyte Fuel Cells

#### 09:50 to 10:10

Wataru Sugimoto (Center for Energy and Environmental Science, Shinshu University, Ueda, Japan)
Model Electrode Study of Nanosheets with Ru@Pt Core-Shell Structure

## 10:10 to 10:30

**Svein Sunde** (*Materials Science and Engineering, NTNU, Trondheim, Norway*), Jørgen Svendby, José Gómez de la Fuente, Frode Seland

Interpretation of measurements of potential of zero total charge at electrocatalysts for low-temperature fuel cells

#### 10:30 to 10:45

# S07 Supercapacitors from Materials and Processes to Applications

## Room: 557

Chaired by: Krzysztof Fic and Juhan Lee

## 09:30 to 10:10 Keynote

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

New Strategies for the Development of Aqueous Electrochemical Capacitors

#### 10:10 to 10:30 Invited

**Juhan Lee** (Energy Materials, INM - Leibniz Institute for New Materials, Saarbrücken, Germany), Volker Presser Charge balance of hybrid energy storage system via vanadium and tin redox activities in aqueous solution

10:30 to 10:45

Coffee Break

# S09 Ionic Liquids as Media for Electrochemical Synthesis

## Room: 556A

Chaired by: Charles Hussey

09:30 to 09:50

**Sophie Legeai** (Jean Lamour Institute, University of Lorraine, Metz, France), Laura Thiebaud, Jaafar Ghanbaja, Nicolas Stein

Template-free electrodeposition of 1D Te nanostructures in ionic liquids

09:50 to 10:10

**Claudine Buess-Herman** (Service de Chimie Analytique et Chimie des Interfaces, Université libre de Bruxelles, Bruxelles, Belgium), Roman Michez, Thomas Doneux

Carbon Dioxide Conversion at the Metal-RTIL Interface

10:10 to 10:30

**Kirti Bhardwaj** (Department of Chemical Engineering & Materials Science, Michigan State University, East Lansing, USA), Romana Jarosova, Greg Swain

Carbon Electrodes in Room Temperature Ionic Liquids - Effect of IL Type, Electrode Microstructure and Surface Chemistry on Capacitance and Electron-Transfer Kinetics

10:30 to 10:45

# S10 Corrosion: Fundamentals, Passivity, and Prevention

## Room: 552A

Chaired by: Robert Kelly

## 09:30 to 09:50 Tajima Prize

Mikhail Zheludkevich (Department of Corrosion and Surface Technology, Helmholtz-Zentrum Geesthacht, Geesthacht, Germany), Sviatlana Lamaka, Daniel Hoeche, Yan Chen, Carsten Blawert

New Inhibition Approach for Active Protective Coatings on Mg Alloys

## 09:50 to 10:10

**Samuel Leleu** (*IRT Saint-Exupéry, CS 44248, Toulouse, France*), Nadine Pebere, Bertrand Rives Corrosion behavior of Mg alloys in Na<sub>2</sub>SO<sub>4</sub> solution: determination of the corrosion rate by EIS and ICP-AES

## 10:10 to 10:30 Invited

**Jungsook Wren** (*Chemistry, University of Western Ontario, London, Canada*), Dan Guo, Youn Gyeong Shin, Mi Li, Zhong Fang, Mojtaba Momeni, Jiju Joseph

Modelling the Effects of pH, Temperature, Radiation and Water Volume on the Evolution of Carbon Steel Corrosion

## 10:30 to 10:45

Coffee Break

# S11 Synthesis and Applications of Electrochemically Active Materials

## Room: 553

Chaired by: Andreas Lesch

## 09:30 to 10:10 Keynote

**Yury Gogotsi** (Department of Materials Science and Engineering, Drexel University, Philadelphia, USA), Xu Xiao, Patrick Urbankowski, Babak Anasori, Huimin Yu, Jun Zhou

Synthesis and Electrochemical Performance of Two-dimensional Transition Metal Nitrides

## 10:10 to 10:30 Invited

**Luigi Falciola** (*Dipartimento di Chimica, Università degli Studi di Milano, Milano, Italy*), Paolo Guffanti, Valentina Pifferi, Anna Testolin, Chiara Ingrosso, Francesca Petronella, Roberto Comparelli, Angela Agostiano, Marinella Striccoli, Maria Lucia Curri, Giuseppe Valerio Bianco, Giovanni Bruno, Ilaria Palchetti

(Photo) Electrochemically Active Functional Hybrids of Multilayer CVD Graphene Decorated with Colloidal  ${\rm TiO}_2$  Nanocrystals

#### 10:30 to 10:45

# S12 Electrochemical Technology for solving 21st Century Challenges

## Room: 555B

Chaired by: Gerardine G. Botte and Joaquin Rodriguez-Lopez

09:30 to 09:50

**Karel Bouzek** (Department of Inorganic Technology, University of Chemistry and Technology Prague, Prague, Czech Republic), Tomas Bystron, Jakub Malis

Nafion® as a Solid Polymer Electrolyte under Elevated Temperature and Pressure

09:50 to 10:10

**Arthur Dizon** (Department of Chemical Engineering, University of Florida, Gainesville, USA), Rui Kong, Mark Orazem

Electrokinetic Technologies for Dewatering Phosphatic Clay Suspensions

10:10 to 10:30

**Stuart Licht** (*Chemistry, George Washington University, Washington, USA*), Matthew Lefler, Marcus Johnson, Jiawen Ren, Juan Vicini

Carbon nanotubes electrosynthesized from CO<sub>2</sub> for efficient, cost incentivized greenhouse gas removal

10:30 to 10:45

Coffee Break

# S14 Let there be Light in Electrochemistry:

From Electrogenerated Chemiluminescence to Fluorescence

## Room: 551A

Chaired by: Gary Blanchard

09:30 to 09:50 Invited

David Waldeck (Chemistry, University of Pittsburgh, Pittsburgh, USA)

Photoinduced Charge Transfer in Quantum Dot Assemblies

09:50 to 10:10

**Aleksandra Joniec** (*Department of Chemistry, University of Warsaw, Warsaw, Poland*), Grzegorz Cichowicz, M. Cyranski, M. Grden, Marek Pekala, Gary Blanchard, Pawel Krysinski

Synthesis and Properties of Luminescent Tb-doped Nanoferrites for Anticancer Therapies

10:10 to 10:30

**Zhifeng Ding** (Chemistry, The University of Western Ontario, London, Canada), Guiming Xiang, Xiang Wang, Kevin Lac, Suning Wang

White Electrochemiluminescence from a Single Pt Complex

10:30 to 10:45

# S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

## Room: 552B

Chaired by: James Noel and Daniel Scherson

09:30 to 09:50 Invited

Dan Bizzotto (Chemistry, University of British Columbia, Vancouver, Canada), Qian V. Liu, Keng C. Chou In-Situ Super-Resolution Fluorescence Characterization of DNA SAMs on Gold Surfaces While Under Electrochemical Control

09:50 to 10:10

Kaylyn Leung (Chemistry, University of British Columbia, Vancouver, Canada), Andrea Diaz Gaxiola, Hua-Zhong Yu, Dan Bizzotto

Using Potential to Control the Exchange of Mercaptohexanol Monolayers with Thiol-modified DNA

10:30 to 10:45

Coffee Break

# S16 Electrochemistry of Metal Clusters and Nanoparticles

## Room: 551B

Chaired by: Shaowei Chen

09:30 to 10:10 Keynote

**Frank Zamborini** (*Chemistry, University of Louisville, Louisville, USA*), Stacy Allen, Dhruba Pattadar The Analysis of Single and Bimetallic Nanoparticle Electrode Assemblies by Stripping Voltammetry

10:10 to 10:30 Invited

**James Rusling** (Chemistry, University of Connecticut, Storrs, USA), Huiqin Yao, Itti Bist, Ben Liu, Islam Mosa, Jie He

Electrocatalytic Oxidation of Organic Molecules and DNA by Ligand-Free Gold Nanoclusters on Nitrided Carbon

10:30 to 10:45

# S18 Education for Electrochemistry and Electrochemical Engineering

## Room: Ballroom C

Chaired by: Alice Suroviec and Jorge Ibanez

09:30 to 09:50 Invited

Judith Faye Rubinson (Department of Chemistry, Georgetown University, Washington, USA)

Electrochemistry in the Undergraduate Curriculum – Exciting the Next Generation of Electrochemists and Electrochemical Engineers

09:50 to 10:10 Invited

Alice Suroviec (Chemistry and Biochemistry, Berry College, Mt Berry, USA)

Electrochemistry Education for an Undergraduate Audience

10:10 to 10:30

Andrea Russell (Chemistry, University of Southampton, Southampton, United Kingdom)

Electrochemistry in the undergraduate curriculum in the UK

10:30 to 10:45

Coffee Break

## S19 General Session

## Room: 555A

Chaired by: Gery Stafford

09:30 to 09:50

Marsilea A. Booth (Department of Bioengineering, Imperial College London, London, United Kingdom), Lucia Massi, Conor Horgan, Molly Stevens, Martyn Boutelle

Real-time Electrochemical Monitoring of Controlled Cargo Release for in Vitro Delivery

09:50 to 10:10

**Olga Swiech** (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Maciej Majdecki, Aleksander Debinski, Agata Krzak, Tomasz Stepkowski, Grzegorz Wojciuk, Marcin Kruszewski, Renata Bilewicz

Application of New Conjugate of Cyclodextrin and Folic Acid in pH-Sensitive, Targeted Therapy with Anthracycline Drugs

10:10 to 10:30

**Fabio La Mantia** (Energiespeicher- und Energiewandlersysteme, Universität Bremen, Bremen, Germany), Dominique Koster, Collins Erinmwingbovo, Alberto Battistel

Measuring dynamic impedance spectra: a comparison between different filtering strategies

10:30 to 10:45

# Tuesday 29 August 2017 - Afternoon

# S01 New Experimental Trends in Analytical Electrochemistry

## Room: 550

Chaired by: Omotayo Arotiba

## 14:00 to 14:20 Invited

**Donghoon Han** (*Chemical and Biomolecular Engineering, University of Notre Dame, Notre Dame, USA*), Garrison Crouch, Kaiyu Fu, Paul Bohn

Spectroelectrochemical Cross-Correlation During Redox Cycling in Zero-Dimensional Nanopore Electrode Arrays

### 14:20 to 14:40

**Seongkoo Cho** (Department of Materials Science and Engineering, Texas A&M University, College Station, USA), Tse-Ming Chiu, Homero Castaneda

Electrochemical Behavior of a Diode-Like Material in a Zn-rich Epoxy with Carbon Nanotubes Coating System

## 14:40 to 15:00

Anne Co (Chemistry and Biochemistry, The Ohio State University, Columbus, USA), Danny Liu, Jose Lorie Lopez, Daniel Lyons, Lei Cao, Philip Grandinetti

Revealing Li-Ion Battery Processes Using Operando Neutron Depth Profiling and NMR Methods

## 15:00 to 15:20

Ritu Kataky (Department of Chemistry, Durham University, Durham, United Kingdom)

Resonance Enhanced Impedance Spectroscopy for real-time monitoring of nanoparticles in lipid layers

## 15:20 to 15:40

**Fen Zhang** (*Chemistry and Biochemistry, The Ohio State University, Columbus, USA*), Eric Coleman, Anne Co Developing a Sensitive and Fast Method for CO<sub>2</sub> Electroreduction Product Detection

## 15:40 to 16:00

**Aliaksei Boika** (*Chemistry, The University of Akron, KNCL, Akron, USA*), Jason Bonezzi, Tulashi Luitel, Ariana Frkonja-Kuczin

Electrokinetic Manipulation of Ag and Pt Nanoparticles and Their Stochastic Electrochemical Detection

## 16:00 to 16:20

**Johna Leddy** (*Chemistry*, *University of Iowa*, *Iowa City*, *USA*), Krysti Knoche Gupta, Nadeesha Rathuwadu Electrochemically Silent Films on Electrodes - Means and Methods in Electroanalysis

#### 16:20 to 16:40

Coffee Break

## 16:40 to 17:00

Emma Brennan (Applied Electrochemical Group, Dublin Institute of Technology, Dublin, Ireland), John Cassidy, Benjamin Schazmann

Miniaturised Solid State Sensors Containing Ionic Liquids for Environmental Analysis

## 17:00 to 17:20

Susana Campuzano (Analytical Chemistry, Universidad Complutense de Madrid, Madrid, Spain), Víctor Ruiz-Valdepeñas Montiel, Rebeca M. Torrente-Rodríguez, A. Julio Reviejo, R. Linacero, F. Javier Gallego, José Manuel Pingarrón

Disposable amperometric biosensing platforms for food safety

## 17:20 to 17:40

**Eugene Smotkin** (Department of Chemistry and Chemical Biology, Northeastern University, Boston, USA) Exchange site local symmetry based normal mode assignments for analysis of ion-exchange membranes

#### 17:40 to 18:00

Miikka Jokinen (Department of Chemistry and Materials Science, Aalto University School of Chemical Engineering, Espoo, Finland), Jose Manzanares, Lasse Murtomäki

Determination of the Soret Coefficient of a Trace Ion with Impedance Spectroscopy

## 18:00 to 18:20

**Pablo Fanjul Bolado** (*R&D Department*, *DropSens*, *S.L.*, *Llanera*, *Spain*), Daniel Martín Yerga, Alejandro Pérez Junquera, David Hernández Santos

*In Situ* Electrochemical Surface-Enhanced Raman Spectroscopy (*EC-SERS*) at Screen-Printed Electrodes as Sensitive Analytical Platform

# S04 Bioelectrochemistry without Borders

## Room: 556B

Chaired by: Renata Bilewicz and Elisabeth Lojou

## 14:00 to 14:40 Keynote - Bioelectrochemistry Prize of ISE Division 2

Jacek Lipkowski (Chemistry, University of Guelph, Guelph, Canada)

Electrochemical, Spectroscopic and Surface Imaging Studies of Antimicrobial Peptides Incorporated into Biomimetic Membranes Supported at a Au Electrode

#### 14:40 to 15:00

**Joanna Juhaniewicz-Debinska** (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Slawomir Sek
On the influence of antibiotic lipopeptides on model biological membranes – Langmuir-Blodgett, QCM-D and Electrochemical Studies

#### 15:00 to 15:20

**Slawomir Sek** (Faculty of Chemistry, Biological & Chemical Research Centre, University of Warsaw, Warsaw, Poland), Joanna Juhaniewicz-Debinska, Dorota Konarzewska

Lipid Bilayers on Gold Electrodes: Mechanism of Formation and Interactions with Membranolytic Peptide-Based Compounds

## 15:20 to 15:40

**Dorota Matyszewska** (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), ZhangFei Su, J. Jay Leitch, Jacek Lipkowski, Richard A. Campbell, Renata Bilewicz

Model phospholipid membranes mimicking healthy and cancer cells to study the interactions with anticancer drugs - electrochemical, spectroscopic and neutron reflectivity studies

#### 15:40 to 16:00 Invited

**Gintaras Valincius** (*Life Science Center, Vilnius University, Vilnius, Lithuania*), Tadas Penkauskas, Gintaras Dreizas, Tadas Meskauskas

Electrochemical Impedance Spectroscopy of Tethered Bilayers: Effect of Random Distribution of Defects in Membrane

## 16:20 to 16:40 Coffee Break

## 16:40 to 17:00

**Ademola Adekunle** (Bioresource Engineering, McGill University, Montreal, Canada), Vijaya Raghavan, Boris Tartakovsky

Bioelectrochemical Systems as Biosensors for Real-Time Environmental Monitoring

#### 17:00 to 17:20

**Achraf Blout** (*LRS-LISE*, *Université Pierre et Marie Curie* (*Paris* 6), Paris, France), Shinsuke Mori, Alain Pailleret, Hubert Perrot, Jerome Pulpytel, Farzaneh Arefi Khonsari, Claude Jolivalt

Development of novel cathode materials for the bioelectrocatalysis of oxygen reduction reaction by laccase from Trametes versicolor

## 17:20 to 17:40

Anju Joshi (Chemistry, Indian Institute of Technology Ropar, Ropar, India), Tharamani C. Nagaiah Hierarchical OCNT- NiFe<sub>2</sub>O<sub>4</sub> composites for sensitive non-enzymatic electrochemical sensing of cholesterol

#### 17:40 to 18:00

**Till Siepenkoetter** (Department of Chemical Sciences, Bernal Institute, University of Limerick, Limerick, Ireland), Urszula Salaj-Kosla, Roland Ludwig, Edmond Magner

Entrapment of Biomolecules in Tunable Nanoporous Gold Networks: A Strategy for Improved Rates of Electron Transfer

## 18:00 to 18:20

**Chun-Hao Su** (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Chia-Liang Sun, Ying-Chih Liao

Printed Combinatorial Sensors with Graphene Oxide Nanoribbons and PEDOT:PSS for Detection of Ascorbic Acid, Dopamine, Uric Acid, and Nitrite

#### 18:20 to 18:40

**Xinxin Xiao** (Department of Chemical Sciences, University of Limerick, Limerick, Ireland), Peter Ó Conghaile, Donal Leech, Roland Ludwig, Edmond Magner

An energy-harvesting device based on supercapacitive enzyme-modified nanoporous gold electrodes: an autonomous pulse generator

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

## Room: Ballroom A

Chaired by: Pradeep Gudur

## 14:00 to 14:40 Keynote

**Kristina Edstrom** (*Department of Chemistry - Angstrom Laboratory, Uppsala University, Uppsala, Sweden*), Julia Maibach, Bertrand Philippe, Maria Hahlin, Hakan Rensmo, Reza Younesi

Electrode/electrolyte interfaces in lithium and sodium batteries

### 14:40 to 15:00 Invited

**Pradeep Guduru** (School of Engineering, Brown University, Providence, USA), Liwei Liu, Shaghayegh Rezazadeh, Humphrey Maris

Real-Time Monitoring of Phase Boundary Propagation in Electrode Materials through Picosecond Ultrasonics

#### 15:00 to 15:20

Claudio Gerbaldi (Department of Applied Science and Technology - DISAT, Politecnico di Torino, Torino, Italy), Marisa Falco, Jijeesh R. Nair, Rongying Lin, Giovanni B. Appetecchi, Francesca Colò, Giuseppina Meligrana, Stefano Passerini, Federico Bella

Safe and Highly Conducting Polymer Electrolytes for Ageing Resistant Li-ion Energy Storage

## 15:20 to 15:40 Invited

**Rita Baddour-Hadjean** (Institut de Chimie et des Matériaux Paris Est, Centre National de la Recherche Scientifique, Thiais, France), Marianne Safrany Renard, Nicolas Emery, Jean-Pierre Pereira-Ramos

The Richness of V<sub>2</sub>O<sub>5</sub> Polymorphs as Superior Cathode Materials for Sodium Insertion

#### 15:40 to 16:00

**Jesus Santos-Pena** (*Department of Chemistry, Université de Tours, Tours, France*), Mohammed Benchakar, Régine Naejus, Christine Damas

Electrolytes for sodium ion batteries: can ionic liquids be alternative additives?

#### 16:00 to 16:20

Francesca Soavi (Department of Chemistry Giacomo Ciamician, Alma Mater Studiorum - Università di Bologna, Bologna, Italy), Irene Ruggeri, Catia Arbizzani

Strategies to improve performance of Li/O2 batteries

#### 16:20 to 16:40

Coffee Break

## 16:40 to 17:00

**Emanuele Gucciardi** (*Device Engineering, CIC energigune, Miñano, Spain*), Frédéric Aguesse, Elixabet Sarasketa-Zabala, Emilie Bekaert

Aging Analysis in Cylindrical Graphite/LiFePO<sub>4</sub> Batteries Cycled at High Current Densities

## 17:00 to 17:20

**Fu-Ming Wang** (Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei, Taiwan)

Poly ionic liquid solid electrolyte interphase (SEI) formation in an improvement of 5V class lithium ion batteries

## 17:20 to 17:40

Giuseppina Meligrana (Department of Applied Science and Technology, Politecnico di Torino, Torino, Italy), Federico Bella, Ana B. Muñoz-García, Andrea Lamberti, Matteo Destro, Michele Pavone, Claudio Gerbaldi

Addressing the Controversial Mechanism of Na<sup>+</sup> Reversible Storage in TiO<sub>2</sub> Nanotube Arrays: Amorphous versus Anatase TiO<sub>2</sub>

## 17:40 to 18:00

**Leah Nation** (*Engineering, Brown University, Providence, USA*), Juchuan Li, Chirstine James, Yue Qi, Nancy Dudney, Brian Sheldon

Oxygen Loss and Stress Evolution During Electrochemical Cycling of Lithium-Rich Cathodes

## 18:00 to 18:20

**Yi-Chun Jin** (Division of Energy Storage Materials & Tech, Industrial Technology Research Institute, Hsinchu, Taiwan), Sheng-Hui Wu, Hsin-Jung Lin

A revolutionary green approach for recyclable lithium ion battery

## 18:20 to 18:40

**Lituo Zheng** (*Chemistry*, *Dalhousie University*, *Halifax*, *Canada*), Lingjun Li, Mark N. Obrovac Effect of Controlled-atmosphere Storage and Ethanol Rinse on NaNi<sub>0.5</sub>Mn<sub>0.5</sub>O<sub>2</sub> for Sodium Ion Batteries

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

## Room: 555A

Chaired by: Brett Lucht

## 14:00 to 14:20

**Hyun-Kon Song** (*School of Energy and Chemical Engineering, UNIST, Ulsan, Korea*), Dong-Gyu Lee, Yeongdae Lee, Taewon Kim, Sang-Ik Jeon

Polypyrrole-assistant Oxygen Electrocatalysis on Perovskite Oxides

#### 14:20 to 14:40

**Almagul Mentbayeva** (National Laboratory Astana, Institute of Batteries, Nazarbayev University, Astana, Kazakhstan), Indira Kurmanbayeva, Zhalgas Kulametov, Aigerim Baimyrza, Zhumabay Bakenov

Solid Electrolytes for Thin Film Li-ion Batteries with Si and SiC Based Anodes

## 14:40 to 15:00

**Nicky Bogolowski** (Chemical Technology, DECHEMA-Forschungsinstitut, Frankfurt a.M., Germany), Jean-Francois Drillet

Test of AlCl<sub>3</sub>-based electrolytes for the rechargeable Al-air battery

## 15:00 to 15:20 Invited

**M. Rosa Palacin** (*Solid State Chemistry, ICMAB-CSIC, Bellaterra, Spain*), Alexandre Ponrouch, Deyana Tchitchekova, Carles Frontera, Fanny Barde, Maria Elena Arroyo-de-Dompablo

The long and winding road towards Ca-based batteries

## 15:20 to 15:40 Invited

**Diana Golodnitsky** (*School of Chemistry, Tel Aviv University, Tel Aviv, Israel*), Elazar Cohen, Moran Lifshitz, Raymond Blanga, Gabor Kosa, Yossi Kamir

New 3D-Microbattery Designs on 3D-Printed Polymer Substrates

## 15:40 to 16:20 Keynote

**Kohei** Uosaki (Ctr for Green Res on Energy and Environmental Materials, National Institute for Materials Science, Tsukuba, Japan), Kentaro Tomita, Hidenori Noguchi

Effect of Impurities on Product Distribution at Li-O2 Battery Cathode

## 16:20 to 16:40 Coffee Break

## 16:40 to 17:00 Invited

**Hajime Arai** (School of Materials and Chemical Technology, Tokyo Institute of Technology, Yokohama, Japan)
Advances in Aqueous Zinc Air Batteries

## 17:00 to 17:20 Invited

**Bing Joe Hwang** (*Chemical Engineering, Taiwan Tech, Taipei, Taiwan*), Ju-Hsiang Cheng, Addisu Alemayehu Assegie, Chen-Jui Huang, Ming-Hsien Lin, Wei-Nien Su

Visualization of Lithium Plating and Dissolution via in Operando Transmission X-ray and Optical Microscopy

## 17:20 to 17:40

Rinaldo Raccichini (Chemistry, University of Southampton, Southampton, United Kingdom), James Dibden, John Owen, Nuria Garcia-Araez

Conductivity, Viscosity and Ionic Dissociation of LiTFSI-1,3 Dioxolane Electrolyte Solutions: a Case Study for Li-S Battery Applications

## 17:40 to 18:00 Invited

Mahalingam Balasubramanian (Advanced Photon Source, Argonne National Laboratory, Argonne, USA), Quan Pang, Changwook Lee, Seungbum Ha, Lei Cheng, Sang-Don Han, Kevin Zavadil, Linda Nazar, Kevin Gallagher Sulfur Electrochemistry in a Sparingly Soluble Electrolyte

#### 18:00 to 18:20

**Gunther Wittstock** (School of Mathematics and Natural Sciences, Carl von Ossietzky University of Oldenburg, Oldenburg, Germany), Eduardo dos Santos Sardinha, Martin Sternad, Martin Wilkening

Formation of Solid Electrolyte Interphases on Silicon Electrodes

#### 18:20 to 18:40

**Daniela Leanza** (Energy and Environment Research Division (ENE), Paul Scherrer Institut PSI, Villigen PSI, Switzerland), Carlos Vaz, Izabela Czekajc, Petr Novak, Mario El Kazzi

The Controversial Surface Reactivity of Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub> in the Aprotic Electrolyte Disclosed with XPEEM

# S06 Fuel Cells and Electrolyzers

## Room: Ballroom B

Chaired by: Christophe Coutanceau and Makoto Uchida

## 14:00 to 14:20

**Shoji Hall** (*Materials Science and Engineering, Johns Hopkins University, Baltimore, USA*), Du Sun Electrochemical Oxygen Reduction Reaction on Earth-abundant Rich Palladium Alloys

## 14:20 to 14:40

**James S. Walker** (School of Chemical Engineering, University of Birmingham, Birmingham, United Kingdom), Neil V. Rees, Paula M. Mendes

Ternary Alloy Nanoparticles for Polymer Electrolyte Fuel Cell Electrocatalysis

## 14:40 to 15:00 Invited

**Christophe Coutanceau** (*IC2MP*, *University of Poitiers*, *Poitiers*, *France*), Delphine Dru, Stève Baranton, Agathe Frelon, Pierrick Buvat, Janick Bigarré, Patrick Urchaga

Fluorine-Free Pt Nanocomposites for Three-Phase Interfaces in FuelCell Electrodes

## 15:00 to 15:20

**Dinesh C. Sabarirajan** (*Mechanical Engineering, Tufts University, Medford, USA*), Iryna V. Zenyuk Analysis of proton transport in ionomer/carbon layers using hydrogen pump technique

#### 15:20 to 15:40 Invited

**Makoto Uchida** (Fuel Cell Nanomaterials Research Center, University of Yamanashi, Kofu, Japan), Kento Takahashi, Katsuyoshi Kakinuma

Improvement of Cell Performance in Low-Pt-Loading PEFCCathode Catalyst Layers with  $Pt/Ta-SnO_2$  Prepared by the Electrospray Method

## 15:40 to 16:00

**Andrew Shum** (*Mechanical Engineering, Tufts University, Medford, USA*), Xianghui Xiao, Dilworth Parkinson, Adam Weber, Odne Burheim, Iryna V. Zenyuk

*In-Situ* Examination of Phase-Change-Induced Flow in Gas Diffusion Layers using Micro X-Ray Computed Tomography

## 16:00 to 16:20

**Yu Kakizawa** (*Graduate School of Eng., University of Yamanashi, Kofu, Japan*), Kazuhiro Takanohashi, Adrien Lamibrac, Makoto Aoki, Felix Büchi, Akihiro Iiyama, Junji Inukai

Oscillations of cell voltage and oxygen partial pressures of PEFC analyzed by using optical probes

#### 16:20 to 16:40

## 16:40 to 17:00

Iryna V. Zenyuk (Mechanical Engineering, Tufts University, Medford, USA)

Characterizing PEM Water Electrolysis with X-ray Computed Tomography

## 17:00 to 17:40 Keynote

Katherine Ayers (Engineering, Proton OnSite, Wallingford, USA)

Low Temperature Electrolysis: Pathways to Large Scale Renewable Hydrogen

#### 17:40 to 18:00

**Pierre Millet** (*Chemistry Department, Paris-Sud University, Orsay, France*), Baptiste Verdin, Hakim Bounoua Distribution of Current Lines in Catalytic Layers of PEM Water Electrolyzers

## 18:00 to 18:20

Marc Ledendecker (Interface Chemistry and Surface Engineering, Max-Planck-Institut für Eisenforschung, Düsseldorf, Germany), Jared Mondschein, Olga Kasian, Simon Geiger, Max Schalenbach, Aleksandar Zeradjanin, Serhiy Cherevko, Raymond Schaak, Karl Mayrhofer

Stability of binary metallic ceramics in the HER reaction - feasible HER electrocatalysts in acidic medium?

### 18:20 to 18:40

**Jaromir Hnat** (Department of Inorganic Chemistry, University of Chemistry and Technology Prague, Prague, Czech Republic), Debabrata Chanda, Tomas Bystron, Martin Paidar, Karel Bouzek

Reduced Graphene Oxide Modified Ni Foam as an Efficient Hydrogen Evolution Electrode

# S07 Supercapacitors from Materials and Processes to Applications

## Room: 557

Chaired by: Francois Beguin and Alexei Kornyshev

## 14:00 to 14:20 Invited

**Dominic Rochefort** (*Departement de Chimie*, *Universite de Montreal*, *Montreal*, *Canada*), Valentyn Skrypnik, Han Jin Xie, Bruno Gelinas

Ferrocenated Ionic Liquids and their Polymers for Energy Storage

## 14:20 to 14:40 Invited

**Francois Beguin** (Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Poznan, Poland), Qamar Abbas

High voltage carbon/carbon supercapacitors performing down to -40°C in neutral aqueous electrolytes

## 14:40 to 15:00 Invited

**Eider Goikolea** (*Power Storage*, *Batteries and Supercapacitors*, *CIC Energigune*, *Miñano*, *Spain*), Edurne Redondo, Roman Mysyk

Effect of Electrolyte Concentration on Aqueous Supercapacitor Performance

## 15:00 to 15:20

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

Low-temperature aqueous carbon/carbon electrochemical capacitor

## 15:20 to 15:40

**Samia Amara** (*CEA*, *CEA Le Ripault*, *Monts*, *France*), Laure Timperman, Agnès Biller, Joel Toulc'Hoat, Matthieu Le Digabel, Hervé Galiano, Mérièm Anouti

Comparative study of electrolytes based on lithium, sodium or potassium salts dedicated to symmetric or hybrid capacitors

## 15:40 to 16:00

**Ghenima Oukali** (*Loiret, CNRS CEMHTI UPR3079, Universite d'Orleans, Orleans, France*), Elodie Salager, Encarnacion Raymundo-Pinero, Michael Deschamps

In situ NMR Study of Ion Transfer during the Charge/Discharge of Supercapacitors

## 16:00 to 16:20

**Fangyuan Su** (CAS Key Laboratory of Carbon Materials, Institute of Coal Chemistry, Chinese Academy of Sciences, Taiyuan, China)

Tailoring the Electrode/Electrolyte Interface to Improve the Energy Density of Graphene Based Lithium-ion Capacitor

## 16:20 to 16:40

Coffee Break

## 16:40 to 17:20 Keynote

**Keryn Lian** (*Materials Science and Engineering, University of Toronto, Toronto, Canada*), Matthew Genovese, Alvin Virya, Jak Li, Haoran Wu, Han Gao

Biochar Activated Carbon Materials and their Applications in Solid Supercapacitors

## 17:20 to 17:40

**Jeng-An Wang** (*Chemical Engineering, National Tsing Hua University, Hsinchu, Taiwan*), Da-Je Hsu, Tien-Yu Yi, Yu-Chien Liu, Yan-Shi Chen, Gao-Shee Leu, Chi-Chang Hu

Electrochemical Activation of Carbons for High-Voltage Organic Electrical Double-Layer Capacitors

## 17:40 to 18:00

**Cédric Desgranges** (*PCM2E*, *François Rabelais University*, *Tours*, *France*), Fouad Ghamouss, Aurelien Boisset, Jérémie Descarpentries, Mathieu Pinault, Martine Mayne-L'Hermite, François Tran-Van, Harald Hauf, Pascal Boulanger

Vertically Aligned Carbon Nanotubes (VACNT) grown on Al Current Collector for High Performances EDLC

## 18:00 to 18:20

Rasa Pauliukaite (Department of Nanoengineering, Center for Physical Sciences and Technology, Vilnius, Lithuania), Aneta Radzevic, Lukas Laurinavicius, Justina Gaidukevic, Jurgis Barkauskas

Characterization of Graphene Synthesized with Various Reducing Agents Using Cyclic Voltammetry and Electrochemical Impedance Spectroscopyfor for Suppercapacitor Application

## 18:20 to 18:40

Ying Yang (Department of Electrical Engineering, Tsinghua University, Beijing, China), TrungHieu Le, Yihong Qin, Zheng-Hong Huang, Feiyu Kang

Synthesis of High Specific Surface Area Mesoporous Carbon Nanospheres and Their Electrochemical Performance

# S09 Ionic Liquids as Media for Electrochemical Synthesis

## Room : 556A

Chaired by: Andreas Bund and Tetsuya Tsuda

## 14:00 to 14:40 Keynote

**Toshiyuki Nohira** (*Institute of Advanced Energy, Kyoto University, Uji, Japan*), Rika Hagiwara, Kazuhiko Matsumoto, Changsheng Ding, Atsushi Fukunaga, Shoichiro Sakai, Koji Nitta

Sodium-Ion Batteries Using FSA-Based Ionic Liquids

## 14:40 to 15:00

Max Schammer (Electrochemistry, Helmholtz Institute Ulm, University Ulm, Ulm, Germany), Birger Horstmann, Arnulf Latz

Modelling Zinc Batteries with Ionic Liquid Electrolyte

### 15:00 to 15:20

**Theresa Schoetz** (Engineering and the Environment, University of Southampton, Southampton, United Kingdom), Carlos Ponce de Leon, Andreas Bund, Mikito Ueda

Preparation and Characterization of a Rechargeable Battery based on Conductive Polymers and Aluminum in an Ionic Liquid Electrolyte

## 15:20 to 15:40 Invited

**Tetsuya Tsuda** (*Department of Applied Chemistry, Osaka University, Suita, Japan*), Chih-Yao Chen, Yoshifumi Oshima, Susumu Kuwabata

In Situ Electron Microscope Observation for High Capacity Anodes in Next-Generation IL-Based Li Batteries

#### 15:40 to 16:00

**Roberto M. Torresi** (*Instituto de Química*, *Universidade de São Paulo*, *São Paulo*, *Brazil*), Nedher Sanchez-Ramirez, Vitor L. Martins, Tânia Machado Benedetti

Ionic transport in ionic liquids and poly(ionic liquids) and its lithium mixtures

## 16:00 to 16:20

Pierre-Alexandre Martin (IFM, Deakin, Geelong, Australia)

Studies of molecular motions and interactions in ionic liquids electrolytes by Nuclear Magnetic Resonance

## 16:20 to 16:40 Coffee Break

## 16:40 to 17:00 Invited

**Cristina Pozo-Gonzalo** (*Institute for Frontier Materials*, *Deakin University*, *Burwood*, *Australia*), Patrick C. Howlett, Douglas MacFarlane, Forsyth Maria

Oxygen Reduction Mechanism in a Highly Na<sup>+</sup> Concentrated Pyrrolidinium-based Ionic Liquid

## 17:00 to 17:20

**Peter Schmitz** (*Institute of Physical Chemistry, Justus-Liebig-University Giessen, Giessen, Germany*), Daniel Schröder, Marcus Rohnke, Jürgen Janek

Exploring the Oxygen Reduction Reaction in Ionic Liquids to Synthesize Silver Oxides with Unusual Oxidation State

## 17:20 to 17:40

Miguel A. Montiel (Instituto de Electroquímica, Universidad de Alicante, Alicante, Spain), Carlos Sanchez-Sanchez, José Sollá-Gullón, Vicente Montiel

Electrocatalysis in Ionic Liquids: Defining Experimental Conditions

#### 17:40 to 18:00

Marcin Opallo (Department of Electrode Processes, Institute of Physical Chemistry PAS, Warszawa, Poland), Justyna Jedraszko, Wojciech Nogala, Wojciech Adamiak, Saustin Dongmo, Gunther Wittstock, Hubert H. Girault Electrocatalytic H<sub>2</sub>O<sub>2</sub> generation at Ionic LiquidlWater Interface

## S10 Corrosion: Fundamentals, Passivity, and Prevention

## Room: 552A

Chaired by: Douglas Hansen

#### 14:00 to 14:20 Invited

**Stephen Raiman** (*Corrosion Science and Technology, Oak Ridge National Laboratory, Oak Ridge, USA*), Bruce Pint, Kurt Terrani, Yutai Katoh, Caen Ang, Peter Doyle

Corrosion of candidate materials for accident tolerant fuel cladding

## 14:20 to 14:40

**José Duarte** (*Institute of Chemistry and Biotechnology, Federal University of Alagoas, Maceió, Brazil*), Carmem Zanta, Josealdo Tonholo, Antônio Neto, Jesus Fortes

In vitro corrosion of titanium implants and prosthetic metal alloys (Ni-Cr) in different electrolytic solutions

#### 14:40 to 15:00

**Barbara Laurent** (Den-Service de la Corrosion et du Comportement des Matériaux, Commissariat à l'Energie Atomique, Saclay, France), Nathalie Gruet, Benoit Gwinner, Frédéric Miserque, Michel Tabarant, Kevin Ogle Influence of silicon on the transpassive behavior of austenitic stainless steel in acidic media investigated through innovative coupling of *in-situ* atomic emission spectroelectrochemistry and *ex-situ* analysis

#### 15:00 to 15:20

**Simerjeet Gill** (Nuclear Science and Technology Department, Brookhaven National Lab, Upton, USA), Kotaro Sasaki, Zhixiu Liang, Hugh Isaacs, Mingyuan Ge, Kim Kisslinger, Yong Chu, Lynne Ecker

Quantitative imaging of intergranular corrosion of stainless steel using Hard X-Ray Nanoprobe

#### 15:20 to 15:40 Invited

David Shoesmith (Department of Chemistry, University of Western Ontario, London, Canada)

The Development of Corrosion Models for Nuclear Waste Disposal Systems

## 15:40 to 16:20 Keynote

Kevin Ogle (IRCP, Chimie-Paristech, Paris, France), Peng Zhou

The electrochemistry & corrosion of Zn-Al-Mg alloys: Quantifying the contribution of elemental components and individual phases

#### 16:20 to 16:40

Coffee Break

## 16:40 to 17:00 Invited

**Douglas Hansen** (Nonstructural Materials, University of Dayton Research Institute, Dayton, USA), Brooke Bennett

Inhibition of Flash Rusting by a Mussel Adhesive Protein: Characterizing the Interaction of MAP-5 on HY80, a High Strength Low Alloy Steel

## 17:00 to 17:20

**Jizhou Duan** (Key Lab of Marine Environmental Corrosion and Biofouling, Institute of Oceanology, Chinese Academy of Sciences, Qingdao, China)

Marine Microbial Corrosion: A Preliminary Interpretation Based on Electroactive Biofilm Corrosion Mechanisms

## 17:20 to 17:40

Luis Frederico Dick (Dept. Metalurgy, Federal Univ. of Rio Grande do Sul, Porto Alegre, Brazil), Gorge Matos, Silvia Giuerrero, Deborah Dick

Influence of Humic Acid on the Corrosion of Zn And Galvanized Steel in Chloride Solutions

#### 17:40 to 18:00

**Yongsheng Hao** (School of Materials Science and Engineering, Shenyang University of Chemical Technology, Shenyang, China)

The Self-healing Effect of Polyaniline in an Epoxy Coatings for Carbon Steel Protection

#### 18:00 to 18:20

**Aria Kahyarian** (*Chemical and Biomedical Engineering, Ohio University, Athens, USA*), Srdjan Nesic Advancements in Corrosion Rate Prediction of Mild Steel in the Presence of Acetic Acid

#### 18:20 to 18:40

**Juan Creus** (*University of La Rochelle, LaSIE UMR 7356, La Rochelle, France*), Christelle Rebere, Philippe Steyer

Corrosion resistance of composition modulated multilayer Zn-Ni electrodeposited coatings, influence of the periodicity

# S11 Synthesis and Applications of Electrochemically Active Materials

## Room: 553

Chaired by: Serena Arnaboldi and Joaquin Rodriguez-Lopez

## 14:00 to 14:40 Keynote

**Joaquin Rodriguez-Lopez** (Department of Chemistry, University of Illinois at Urbana-Champaign, Urbana, USA), Mark Burgess, Kenneth Hernandez-Burgos, Jingshu Hui, Elena Montoto, Zachary Gossage, Noah Schorr, Jeffrey Moore

Exploring the Reactive Modulation of Soluble Redox Active Polymers *via* Versatile Electrochemical Interrogation

## 14:40 to 15:00

Massimo Marcaccio (Chemistry, University of Bologna, Bologna, Italy), Giovanni Valenti, Lawrence T. Scott, Claudio Fontanesi, Francesco Paolucci

Curved Polyaromatic Hydrocarbons. An Electrochemical Route to Generate Graphen-like Structures

## 15:00 to 15:20

**Irkham Irkham** (*Chemistry, Keio University, Yokohama, Japan*), Takeshi Watanabe, Yasuaki Einaga Hydroxide Ion Oxidation in Aqueous Solutions Using Boron-doped Diamond Electrodes

## 15:20 to 15:40

Vinicius Goncales (School of Chemistry, The University of New South Wales, Sydney, Australia), Leila Zarei, Mehran Kashi, Ying Yang, Yanfang Wu, Simone Ciampi, Justin Gooding

Light activated electrochemistry on silicon electrodes: opportunities and challenges

## 15:40 to 16:00

**Serena Arnaboldi** (*Chemistry*, *Università degli Studi di Milano*, *Milan*, *Italy*), Tiziana Benincori, Simona Rizzo, Francesco Sannicolo, Patrizia Romana Mussini

Panoramic Overview on the Enantioselection Performance of Inherently Chiral Surfaces: a Comparison between Systems with Different Atropisomeric Cores and Stereogenic Elements

## 16:00 to 16:20 Invited

**Andreas Lesch** (Laboratory of Physical and Analytical Electrochemistry, EPFL Valais Wallis, Sion, Switzerland), Hubert H. Girault

Synthesizing Catalyst Nanoparticles on Large Electrodes by Combining Inkjet Printing and Flash Light Irradiation

## 16:20 to 16:40 Coffee Break

## 16:40 to 17:00

**Seiji Kasahara** (*Chemistry Department, Keio University, Yokohama, Japan*), Keisuke Natsui, Yasuyuki Yokota, Yousoo Kim, Shota Iizuka, Yoshitaka Tateyama, Yasuaki Einaga

The Electrochemical Activation of Boron-Doped Diamond Electrodes by Cathodic Reduction Treatments

## 17:00 to 17:20

**Andrea Zaffora** (Electrochemical Materials Science Laboratory, DICAM, University of Palermo, Palermo, Italy), Francesco Di Quarto, Ilia Valov, Monica Santamaria

Electrochemically Prepared Oxides for Resistive Switching Devices

## 17:20 to 17:40

**Noah Schorr** (*Chemistry, University of Illinois at Urbana-Champaign, Urbana, USA*), Zachary Gossage, Jingshu Hui, Kenneth Hernandez-Burgos, Joaquin Rodriguez-Lopez

Elucidating Next Generation Battery Materials with *in Situ* Raman Spectroscopy Coupled to Scanning Electrochemical Microscopy

#### 17:40 to 18:00

**Hao Yang** (*Materials Science and Engineering*, *National Tsing Hua University*, *Hsinchu*, *Taiwan*)

The electrochemical studies of new substituted olivine LiMn<sub>1,x</sub>VO<sub>x</sub>PO<sub>4</sub> as a cathode material in LIBs

## 18:00 to 18:20

**Bastian J.M. Etzold** (*Chemistry, Technische Universität Darmstadt, Darmstadt, Germany*), Teguh Ariyanto, Marco Zeiger, Guirong Zhang, Volker Presser

Core-shell carbide-derived carbons as platform for high performance electrochemical energy storage and electrocatalysis

#### 18:20 to 18:40

**Xiao Su** (*Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA*), Kai-Jher Tan, Johannes Elbert, Timothy Jamison, T. Alan Hatton

Asymmetric Metallopolymer Redox-Electrodes for Pseudocapacitive Deionization and Selective Ion Separations

# S12 Electrochemical Technology for solving 21st Century Challenges

## Room: 555B

Chaired by: Antoine Allanore, Gerardine G. Botte and Joaquin Rodriguez-Lopez

## 14:00 to 14:40 Keynote

**Robert Savinell** (*Chemical and Biomolecular Engineering, Case Western Reserve University, Cleveland, USA*), Xinyou Ke, Joe Murphy, Jesse Wainright

Slurry Electrodes for Flow Batteries and Other Electrochemical Technologies

#### 14:40 to 15:00

Gerardine G. Botte (Center for Electrochemical Engineering Research, Ohio University, Athens, USA), Ben Sheets

Electrochemical Production of Ammonia in Alkaline Media

## 15:00 to 15:20

**José Sollá-Gullón** (Institute of Electrochemistry, University of Alicante, Alicante, Spain), Beatriz Avila, Leticia Garcia-Cruz, Vicente Montiel

Electrochemical Reduction of CO<sub>2</sub> to Formate on Nanostructured Bismuth Electrodes

#### 15:20 to 15:40

Elena Baranova (Chemical and Biological Engineering, University of Ottawa, Ottawa, Canada), Mohamed Houache, Emily Cossar

The Role of Nickel-based Surfaces in Electrochemical Valorization of Glycerol: PM-IRRAS Insight

#### 15:40 to 16:00

Aicheng Chen (Department of Chemistry, Lakehead University, Thunder Bay, Canada), Sapanbir Thind, Shuai Chen, Jordan Wentzell

Electrochemical and Photoelectrochemical Study of Tungsten Oxide Based Nanomaterials for Environmental and Energy Applications

#### 16:00 to 16:20

**Aaron Marshall** (Department of Chemical and Process Engineering, University of Canterbury, Christchurch, New Zealand), Asadollah Kariman, Alfred Herritsch

Understanding the mechanism and kinetics of electrochemical wastewater treatment at oxygen evolving anodes

## 16:20 to 16:40

Coffee Break

## 16:40 to 17:00

**Thomas Turek** (Chemical and Electrochemical Process Engineering, Clausthal University of Technology, Clausthal-Zellerfeld, Germany), Marina Bockelmann, Ulrich Kunz

Rechargeable Zinc-Oxygen Flow Battery with High Power Density

## 17:00 to 17:20

**Jilei Liu** (Division of Physics & Applied Physics, Nanyang Technological University, Singapore, Singapore), Zexiang Shen

Unraveling the Potassium Storage Mechanism in Graphite Foam

## 17:20 to 17:40

**Remi Blanchard** (*Electrochemistry, LEPMI, Saint Martin d'Heres, France*), Marian Chatenet, Arnaud Mantoux Homogeneous catalysis and redox shuttle for non-aqueous Li-O<sub>2</sub> cathode

## 17:40 to 18:00

Woonsup Shin (Department of Chemistry, Sogang University, Seoul, Korea), Mijung Park, Daehoon Yang, Jina Kim

Electrochemical CO<sub>2</sub> conversion system based on dental amalgam electrode

## 18:00 to 18:20

**Marc-Antoni Goulet** (School of Engineering and Applied Sciences, Harvard University, Cambridge, USA), Eugene Beh, Roy G. Gordon, Michael J. Aziz

Stability of Organic and Organometallic Flow Battery Reactants

## 18:20 to 18:40

**Ulli Kunz** (Institute of Chemical and Electrochemical Process Engineering, Clausthal University of Technology, Clausthal-Zellerfeld, Germany), Jens Christian Riede, Thomas Turek

Zinc Concentration as Critical Parameter for Dendritic Growth of Deposited Zinc in Rechargeable Zinc-Oxygen Batteries

# S14 Let there be Light in Electrochemistry: From Electrogenerated Chemiluminescence to Fluorescence

## Room: 551A

Chaired by: Zhifeng Ding

## 14:00 to 14:40 Keynote

**Paul Bohn** (Chemical and Biomolecular Engineering, University of Notre Dame, Notre Dame, USA), Donghoon Han, Kaiyu Fu, Garrison Crouch, Seung-Ryong Kwon

Bifunctional Nanophotonic-Nanoelectrochemical Arrays for Luminescence Studies of Single Molecule Electron Transfer Events

## 14:40 to 15:00

Louzhen Fan (Chemistry, Beijing Normal University, Beijing, China)

Bright Multicolor Bandgap Fluorescent Carbon Quantum Dots for Electroluminescent Light-Emitting Diodes

## 15:00 to 15:20

Camilo Garcia (Escuela de Ciencias Ambientales, Universidad Católica de Temuco, Temuco, Chile), Freddy Navarro, Domingo Ruiz, Maria Jesús Aguirre

ECL evaluation of CdTe quantum dots immobilized on screen printed electrodes, characterizations and potential applications

## 15:20 to 15:40

**Paul Francis** (Centre for Chemistry and Biotechnology, Deakin University, Waurn Ponds, Australia), Egan Doeven, Lifen Chen, Lachlan Soulsby, David Hayne, Emily Kerr, Conor Hogan, David Wilson

Advances in Electrogenerated Chemiluminescence with Iridium(III) Complexes

## 15:40 to 16:00

Conor Hogan (Department of Chemistry and Physics, La Trobe Institute for Molecular Science, Melbourne, Australia), Bradley Stringer, Linh Quan, Peter Barnard

Electrochemically Sensitized Luminescence from Lanthanides in d-f Heteronuclear Arrays

## 16:00 to 16:20

**Olivier Buriez** (*Ecole Normale Superieure*, *CNRS*, *Paris*, *France*), Ana Isabel Perez Jimenez, Lylian Challier, Eric Ait-Yahiatene, Jérôme Delacotte, Eric Labbe

Selective Electrochemical Bleaching of the Outer Leaflet of Fluorescently labeled Giant Liposomes

## 16:20 to 16:40

Coffee Break

## 16:40 to 17:00

**Marilia Goulart** (*Instituto de Química e Biotecnologia, Universidade Federal de Alagoas, Maceio, Brazil*), Thaissa Silva, Flavio Emery, Eufranio da Silva Júnior

The First BODIPY-Based Fluorescent Naphthoquinone: Electrochemistry, Cell Studies and Cytotoxicity

## 17:00 to 17:20

**Fabien Miomandre** (*Dept PPSM*, *Ecole Normale Superieure Paris-Saclay*, *Cachan*, *France*), Manon Lafouresse, Philippe Allongue, Fouad Maroun, Jean-Frédéric Audibert, Pierre Audebert

Electrochemical Modulation of the Fluorescence of Tetrazine Grafted Monolayers on Au/ITO Electrodes

## 17:20 to 17:40

**Zhong-Qun Tian** (*Chemistry Department, Xiamen University, Xiamen, China*), Wei Lu, Chao Zhan, Yi-Fan Huang, Meng Zhang, Rang Pang, Xue-Jiao Chen, Jian-Feng Li, De-Yin Wu, Bing-Wei Mao, Zhong-Qun Tian

Plasmon-enhanced electrochemical reaction on nanostructured Ag and Au electrodes in ionic liquids and aqueous solutions

## 17:40 to 18:00

Gary Blanchard (Department of Chemistry, Michigan State University, East Lansing, USA), Ke Ma, Romana Jarosova, Greg Swain

Long Range Organization in Room Temperature Ionic Liquids

#### 18:00 to 18:20

Lars J.C. Jeuken (Faculty of Biological Sciences, University of Leeds, Leeds, United Kingdom), Lukasz Krzeminski, Mengqiu Li, Ee Taek Hwang

Fluorescent bioelectrochemistry and hybrid biovoltaics

# S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

## Room: 552B

Chaired by: Richard McCreery and Christophe Renault

## 14:00 to 14:20

**Cheng Zong** (*Department of Chemistry, Xiamen University, Xiamen, China*), Kaichao Deng, Bin Ren Electrochemical Surface-enhanced Raman Microscopy (EC-SERM)

## 14:20 to 14:40 Invited

**Petr Krtil** (*Electrocatalysis*, *J. Heyrovsky Institute of Physical Chemistry*, *Prague*, *Czech Republic*), Jonathan Mueller, Hana Hoffmannova, Timo Jacob

Dynamics of Surface Phases - the Nuts and Bolts of Rational Design of Binary Alloy Catalysts

## 14:40 to 15:00

**Andrea Russell** (*Chemistry, University of Southampton, Southampton, United Kingdom*), Stephen Thompson, Stephen Price, Abu Bakr Ahmed Amine Nassr, Huang Haoliang, Lucilla Mendez De Leo, Ernesto Julio Calvo, Vinod Kumar Puthiyapura, Christopher Hardacre, Daniel Brett, Laura Calvillo

Structural effects on the activity, selectivity, and stability of PtSn alcohol oxidation electrocatalysts

#### 15:00 to 15:20

Amanda Cristina Garcia (Leiden Institute of Chemistry, Leiden University, Leiden, Netherlands), Yuvraj Birdja, Germano Tremiliosi-Filho, Marc Koper

Promoting Role of Bismuth on Pt Single Crystals for the Selective Oxidation of Glycerol to Dihydroxyacetone

## 15:20 to 15:40 Invited

**Christophe Renault** (*Chemistry, CNRS-Ecole Polytechnique, Palaiseau, France*), Cecilia Laborde, Franz Widdershoven, Serge G. Lemay

Electrochemistry at 50 MHz: Probing Beyond the Electrical Double Layer

## 15:40 to 16:00

Richard McCreery (Chemistry, University of Alberta, Edmonton, Canada), David James, Mustafa Supur, Scott Smith

Redox reactions in < 20 nm thick electrochemical cells

#### 16:00 to 16:20

**Richard Gondosiswanto** (School of Chemistry, University of New South Wales, Sydney, Australia) Salt-on-a-chip: Microcontact Printing of Ionic Liquids for Electrochemical Gas Sensors

## 16:20 to 16:40

16:40 to 17:00

**Ove Oll** (*Institute of Chemistry, University of Tartu, Tartu, Estonia*), Georg Gorbatovski, Erik Anderson, Enn Lust Specific Adsorption of Anions from Ionic Liquids: an *in situ* STM and Impedance Study

17:00 to 17:20

Lise Daniel (DEHT, CEA-Liten, Grenoble, France), Sylvie Genies, Xavier Fleury, Jean-Frédéric Martin, David Brun-Buisson, Claude Chabrol

Role of electrode/electrolyte interface on charged Li-ion cell electrochemical behavior at high temperature

17:20 to 17:40

**Youngmin Yoon** (Chemistry, Massachusetts Institute of Technology, Cambridge, USA), Bing Yan Utilizing Double Layer Capacitance as a General Benchmarking Probe of Electroactive Surface Area

17:40 to 18:00

**Alexis Grimaud** (*College de France*, *CNRS*, *Paris*, *France*), Chunzhen Yang, Jean-Marie Tarascon Amorphous *vs* crystalline "redox" catalysts for the oxygen evolution reaction - A mechanistic study

18:00 to 18:20

**Julia Kunze-Liebhaeuser** (*Institute of Physical Chemistry, University of Innsbruck, Innsbruck, Austria*), Andrea Auer, Dominik Steiner, Engelbert Portenkirchner

Anatase and Amorphous  ${\rm TiO}_2$  Nanotube Anodes for Li-Ion Batteries: XPS and Impedance Study of Lithiation and Delithiation

# S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

## Room: 554

Chaired by: Daniel Scherson

14:00 to 14:20 Invited

**Katharina Krischer** (*Physics Department, Technical University of Munich, Garching, Germany*), Filippo Cosi, Antoine Bonnefont, Sebastien Bozdech, Elena Savinova

Constructive and Destructive Effects of Molecular Noise in Nanoscale Electrochemical Systems

14:20 to 14:40

Elena Pérez Gallent (Leiden Institute of Chemistry / CASC, Leiden University, Leiden, Netherlands)

Spectroscopic Observation of a Hydrogenated CO Dimer Intermediate During CO Reduction on Cu(100) Electrodes

14:40 to 15:00

**Yujin Tong** (*Physical Chemistry*, *Fritz Haber Institute of the Max Planck Society*, *Berlin*, *Germany*), Martin Wolf, R. Kramer Campen

Employing Surface Specific Vibrational Spectroscopy to Study Adsorbate Structure at Electrochemical Interfaces

15:00 to 15:20

**Zhujie Li** (*Maison de la Simulation, CEA/Saclay, Gif-sur-Yvette, France*), Guillaume Jeanmairet, Trinidad Méndez-Morales, Mario Burbano, Matthieu Haefele, Mathieu Salanne

Confinement Effects on an Electron Transfer Reaction in Nanoporous Carbon Electrodes

#### 15:20 to 15:40

Paramaconi Rodriguez (School of Chemistry, University of Birmingham, Birmingham, United Kingdom), Cecile Le Duff

Role of the adsorbed oxygen species in the selective electrochemical reduction of CO<sub>2</sub> to alcohols on copper single-crystal electrodes

## 15:40 to 16:00

**Enrique Herrero** (*Instituto de Electroquimica*, *Universidad de Alicante*, *Alicante*, *Spain*), Adolfo Ferre-Vilaplana, Carlos Buso-Rogero, Juan M. Feliu

Insight in the Formic Acid Oxidation Mechanism on Platinum from Computational and Experimental Results

## 16:00 to 16:20

Wen-Feng Lin (Department of Chemical Engineering, Loughborough University, Loughborough, United Kingdom), Ruirui Zhang, Xiao Lin, Tian Sheng, Shi-Gang Sun

Understanding Methanol Electro-Oxidation Mechanisms on RuO<sub>2</sub>(100) Surface at Atomic and Molecular Level by Combined Studies of *in-situ* FTIR Spectroscopy and DFT Atomistic Modelling

## 16:20 to 16:40

Coffee Break

## 16:40 to 17:00

**Jorge Ferreira de Araújo** (*Chemistry, Technical University Berlin, Berlin, Germany*), Mikaela Görlin, Thomas Merzdorf, Fabio Dionigi, Zarko Jovanov, Strasser Peter

DEMS studies using isotope-labeling for unraveling mechanistic details in  $\rm CO_2/CO$  electroreduction and  $\rm O_2$  evolution reaction

## 17:00 to 17:20

Angel Cuesta (Department of Chemistry, University of Aberdeen, Aberdeen, United Kingdom), Onagie Ayemoba Spectroscopic Evidence of Cation-Dependent Potential-Induced pH Changes during CO<sub>2</sub> Electroreduction

## 17:20 to 17:40

Marco Papasizza (Department of Chemistry, University of Aberdeen, Aberdeen, United Kingdom)

ATR-SEIRAS study of CO<sub>2</sub> electroreduction on Ag and Pt in an imidazolium-based ionic liquid

## 17:40 to 18:00

**Marta Figueiredo** (Leiden Institute of Chemistry, Leiden University, Leiden, Netherlands), Dennis Hiltrop, Marc Koper

Double layer effects on CO adsorption and oxidation on Pt(111)

## 18:00 to 18:20

**Anna Wuttig** (Department of Chemistry, Massachusetts Institute of Technology, Cambridge, USA), Yogesh Surendranath

Cations at the Interface during CO<sub>2</sub>-to-Fuels Catalysis: Spectators, Inhibitors, or Activators?

## 18:20 to 18:40

**Filippo Cavalca** (*Chemical Physics*, *Stockholm University*, *Stockholm*, *Sweden*), Oscar Diaz Morales, Anders Nilsson, Rafael Ferragut, Eilert André, Stefano Aghion, Lars Petterson, Chang Liu

Nature, stability and distribution of subsurface oxygen in copper electrodes during the electrochemical  $\mathrm{CO}_2$  reduction

# S16 Electrochemistry of Metal Clusters and Nanoparticles

## Room: 551B

Chaired by: David Cliffel and Frank Zamborini

## 14:00 to 14:20

**Bart Vanrenterghem** (Faculty of Applied Engineering, University of Antwerp, Wilrijk, Belgium), Nejc Hodnik, Sotiris Sotiropoulos, Tom Breugelmans

Stability of monometallic nanoparticles in organic solvents

### 14:20 to 14:40

**Pekka Peljo** (Laboratoire d'Electrochimie Physique et Analytique, École Polytechnique Fédérale de Lausanne, Sion, Switzerland), Jose Manzanares, Hubert H. Girault

Variation of the Fermi Level of the Nanoparticle: Effect of the Collision with an Electrode and the Contact Electrification

## 14:40 to 15:00

**Jon Ustarroz** (*Electrochemical and Surface Engineering (SURF*), Vrije Universiteit Brussel, Brussels, Belgium), Isabel M. Ornelas, Guohui Zhang, David Perry, Minkyung Kang, Marc Walker, Patrick Unwin

Directional Migration of Pt Size-Selected Nanoclusters During ORR Under High Mass Transport Conditions

## 15:00 to 15:20

**Susana Cordoba de Torresi** (*Instituto de Quimica, Universidade de São Paulo, São Paulo, Brazil*), Fabian Pastrian, Pedro Camargo

Does geometry matter in nanoparticle's reactivity towards glucose sensing?

#### 15:20 to 15:40

**Colleen Jackson** (Chemical Engineering, University of Cape Town, Cape Town, South Africa), Graham Smith, Matthew Markiewicz, Dave Inwood, Andrew Leach, Penny Whalley, Anthony Kucernak, Andrea Russell, Pieter Levecque, Denis Kramer

Metal-Support Interactions of Pt Nanoparticles supported on Boron Carbide Composites

## 15:40 to 16:00

**Tsuyoshi Ochiai** (*Photocatalyst Group, Kanagawa Academy of Science and Technology, Kawasaki, Japan*), Mio Hayashi, Shoko Tago, Akira Fujishima

Platinum-modified Titanium Electrode for Electrochemical Ozone Generation Prepared by the Multiple Electrostrike Method

## 16:00 to 16:20

**Ahmed Galal** (*Chemistry*, *Faculty of Science*, *Cairo University*, *Giza*, *Egypt*), Ekram El-Ads, Nada Atta Electrochemical glucose sensor based on gold-doped nano-perovskite-clusters – New strategy for non-enzymatic sensing application

## 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00

John Stickney (Chemistry, The University of Georgia , Athens, USA)

Pulsed Potential Atomic Layer Deposition (PP-ALD)

## 17:00 to 17:20

**Daniel Escalera López** (School of Chemical Engineering, University of Birmingham, Birmingham, United Kingdom), Yubiao Niu, Sung Jin Park, Andrey Kaplan, Neil V. Rees

Insight in the electrochemistry of earth-abundant, magnetron sputtered molybdenum sulfide nanoclusters

#### 17:20 to 17:40

Siou-Ling Jian (Chemical Engineering, National Taiwan University, Taipei, Taiwan)

Zeolitic Imidazolate Framework-Derived ZnSe/Porous Carbon/ PEDOT: PSS as the Counter Electrode for Dye-Sensitized Solar Cells

#### 17:40 to 18:00

**Yuhui Liu** (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Xiaoyan Jing

Electrochemical Synthesis and Tribological Properties of Flower-like and Sheets MoS<sub>2</sub> in LiCl-KCl-(NH4)<sub>6</sub>Mo<sub>7</sub>O<sub>24</sub>-KSCN Melt

#### 18:00 to 18:20

Wei Wang (School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China)

Optical Imaging of Phase Transition and Li-Ion Diffusion Kinetics of Single  ${\rm LiCoO_2}$  Nanoparticles during Electrochemical Cycling

# S18 Education for Electrochemistry and Electrochemical Engineering

### Room: Ballroom C

Chaired by: Plamen Atanassov, Katharina Krischer and Shelley Minteer

#### 14:00 to 14:20 Invited

Marisa Buzzeo (Chemistry, Barnard College, Columbia University, New York, USA) Integrating Applied Electrochemistry into an Undergraduate Curriculum

#### 14:20 to 14:40

Ingrid Fritsch (Department of Chemistry and Biochemistry, University of Arkansas, Fayetteville, USA)
Engaging Undergraduate Students in Learning Electrochemistry through Analytical Chemistry Courses

### 14:40 to 15:00

Alanah Fitch (Chemistry and Biochemistry, Loyola University of Chicago, Chicago, USA)

Teaching Electrochemistry Surreptitiously: Instrumental Analysis

#### 15:00 to 15:20

**David Cliffel** (Chemistry, Vanderbilt University, Nashville, USA)

The Role of Independent Projects within a Graduate Electrochemistry Course

#### 15:20 to 15:40

**Shelley Minteer** (Chemistry, University of Utah, Salt Lake City, USA)

Curriculum Development Focused on Experimental and Simulation Skills in Electrochemistry

#### 15:40 to 16:00 Invited

**Julie Renner** (Chemical & Biomolecular Engineering, Case Western Reserve University, Cleveland, USA), Katherine Ayers

Building a Research Career in Electrochemical Technology: The Benefits of a Postdoctoral Experience in Industry

#### 16:00 to 16:20

**Thomas Moffat** (*Materials Science and Engineering, National Institute of Standards and Technology, Gaithersburg, USA*), Guokun Liu, Shouzhong Zou, Liang Yueh Ou Yang, Trevor Braun, Lee Richter, Chang Hwa Lee, Daniel Wheeler, Daniel Josell

Superconformal Film Growth: Challenges and Opportunities

16:40 to 17:00

**Katharina Krischer** (*Physics Department, Technical University of Munich, Garching, Germany*)

Bridging the Gap between Disciplines in the Electrochemical Education of Scientists and Engineers

17:00 to 17:20

Plamen Atanassov (Chemical & Biological Engineering, University of New Mexico, Albuquerque, USA)

Teaching Electrochemistry and Electrochemical Engineering: Curriculum for a Technical Elective and a Graduate Course

17:20 to 17:40

**Manuela Rueda** (*Physical Chemistry, University of Seville, Seville, Spain*), Francisco Prieto Teaching Electrochemistry for Chemistry and Material Sciences Degrees

17:40 to 18:00

**Robert Kelly** (*Materials Science and Engineering, University of Virginia, Charlottesville, USA*), Giovanni Zangari, Elizabeth Opila, James Burns, Gary Koenig

Graduate Education in Corrosion Science and Engineering at the University of Virginia

18:00 to 18:20

**Dessi Koleva** (Materials and Environment, Delft University of Technology, Delft, Netherlands)

The Importance of Fundamental Electrochemistry and Methods for Educational Corrosion Courses in the Field of Civil Engineering

18:20 to 18:40

#### **Education Round Table**

Chaired by: Johna Leddy, Jorge Ibanez and Ignacio Gonzalez

Wednesday, 30 August 2017

ROOMS:	Ballroom A	Ballroom B	Ballroom C	ROOMS: Ballroom A Ballroom B Ballroom C Room 550	Room 553	Room 554	Room 557	Room 551A	Room 551B	Room 557 Room 551A Room 551B Room 552A Room 552B Room 555A Room 555B Room 556A Room 556B	Room 552B	Room 555A	Room 555B	Room 556A	Room 556B
SYMPOSIUM	Symposium 5	Symposium 6	Symposium 18	Symposium 3	Symposium 11	Symposium 15	Symposium 7	Symposium 8	Symposium 11	SYMPOSIUM   Symposium 5   Symposium 6   Symposium 18   Symposium 18   Symposium 1   Symposium 1   Symposium 7   Symposium 8   Symposium 8   Symposium 1   Symposium 1   Symposium 5   Symposium 5   Symposium 5   Symposium 5   Symposium 6   Symposium 7   Symposium 7   Symposium 7   Symposium 6   Symposium 7   Sy	3ymposium 15	Symposium 5	Symposium 12	Symposium 9	Symposium 4
08:15 - 09:15						Ā	enary Lectur	Plenary Lecture: Krishnan Rajeshwar (Ballroom A)	shwar (Ballroom	A)					
09:30 - 09:50	N C	K. Elsøe	A. A. Franco	L. Mao	M. Musiani	L. Kibler	J. Ketter	K Cioradaki	X. Zhang	E. Spohr	K. Min	R. Dedryvere	B. Mingo	C. Hussey	K. Sode
09:50 - 10:10		F. Jaouen	S. C. Barton	S. Szunerits	Y. Xu	Bertheussen	J. Miller	N. OIGI AUZNI	R. Colombo	R. Colombo E. Allahyarov	J. Hashemi	J. Hashemi V. Viswanatha	T. Braun	A. Kitada	F. Lisdat
10:10 - 10:30	E. Peled	S. Mukerjee	S. Amemiya	D. Janigro	C. Villevieille	Y. J. Tong		R. Newman	Z. Stojek	Z. Stojek C. W. Monroe	F. Maillard		N. Laugel	HW. Pang	I. Matanovic
10:30 - 10:45								Coffee Break							
10:50 - 11:10															
11:10 - 11:30															
11:30 - 11:50							מחדים מחדים מ	000 3007 6 NOIS	045 047 040)						
11:50 - 12:10							יטס ובוז טבט.	TOSTER SESSION 3 (808, 810, 813, 811, 819)	, 515, 511, 519)						
12:10 - 12:30															
12:30 - 12:45															

# Wednesday 30 August - Morning

# Plenary Lecture

# Room: Ballroom A

Chaired by: Katharina Krischer

08:15 to 09:15

**Krishnan Rajeshwar** (*The University of Texas at Arlington, Arlington, USA*) Photoelectrochemistry, Solid-State Chemistry, and Solar Fuels: A Nexus?

# S03 Electrochemical Approaches to Clinical Diagnostics and Medical Devices

### Room: 550

Chaired by: James Rusling

09:30 to 09:50 Invited

Lanqun Mao (Institute of Chemistry, Chinese Academy of Sciences, Beijing, China)

Enabling Bioelectrochemistry for in Vivo Analysis

09:50 to 10:10 Invited

**Sabine Szunerits** (*IEMN*, *University of Lille*, *Villeneuve d'Ascq*, *France*), Roxana Jijie, Samia Boulahneche, Santosh K. Singh, Mohamed Saleh Medjram, Sreekumar Kurungot, Rabah Boukherroub

On demand release of antibiotics from porous reduced graphene oxide modified flexible electrodes

10:10 to 10:30

Damir Janigro (FloTBI, Cleveland, USA)

A point-of-care device and a cell phone app in the diagnosis of neurological diseases

10:30 to 10:45

# S04 Bioelectrochemistry without Borders

### Room: 556B

Chaired by: Shelley Minteer and Koji Sode

09:30 to 09:50

**Koji Sode** (*Biotechnology and Life Science, Tokyo University of Agriculture and Technology, Koganei, Japan*), Katsuhiro Kojima, Kazushige Mori, Junko Okuda-Shimazaki

Engineering of Redox Potential of Direct Electron Transfer Type Glucose Dehydrogenase

09:50 to 10:10

Fred Lisdat (Biosystems Technology, Institute of Appl. Life Science, Technical University Wildau, Wildau, Germany), David Sarauli, Gero Göbel, Burkhard Schulz, Silke Leimkühler, Dina Fattakova-Rohlfing

Polymer-supported enzyme – electrode contacts as basis for the construction of bioelectrocatalytic sensing electrodes

10:10 to 10:30

**Ivana Matanovic** (Chemical and Biological Engineering Department, University of New Mexico, Albuquerque, USA), Albert Perry III, Sadia Kabir, Madelaine Seow Chavez, Kateryna Artyushkova, Alexey Serov, Plamen Atanassov

Combining Experimental and Computational Approaches in the Design of Synthetic Catalytic Cascades

10:30 to 10:45

Coffee Break

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

### Room: Ballroom A

Chaired by: Daniel Abraham

09:30 to 10:10 Keynote

Gleb Yushin (Materials Science and Engineering, Georgia Institute of Technology, Atlanta, USA)

Conversion-Type Cathodes for Rechargeable Lithium and Lithium-Ion Batteries

10:10 to 10:30

**Emanuel Peled** (*Chemistry, Tel Aviv University, Tel - Aviv, Israel*), Diana Golodnitsky, Meital Goor, Inna Schektman, Tzach Mukra

Lithium Sulfur Battery - Effects of Binders and Barrier Layers on the Performance and Fading of the Cell

10:30 to 10:45

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

### Room: 555A

Chaired by: Remi Dedryvere and Nina Laszczynski

#### 09:30 to 09:50 Invited

**Remi Dedryvere** (*IPREM - UMR 5254, University of Pau - CNRS, Pau, France*), Jeremie Auvergniot, Alice Cassel, Dominique Foix, Virginie Viallet, Vincent Seznec

Interface Stability and Redox Activity of Argyrodite Li<sub>6</sub>PS<sub>5</sub>Cl as Solid Electrolyte in Bulk All-Solid-State Batteries

#### 09:50 to 10:10

**Venkatasubramanian Viswanathan** (Mechanical Engineering, Carnegie Mellon University, Pittsburgh, USA), Vikram Pande

Design principles for self-forming and self-healing stable SEI layer for Li metal anodes

#### 10:30 to 10:45

Coffee Break

# S06 Fuel Cells and Electrolyzers

### Room: Ballroom B

Chaired by: Frederic Jaouen

#### 09:30 to 09:50

Katrine Elsøe (DTU Energy, Roskilde, Denmark), Laila Grahl- Madsen, Günther Scherer, Johan Hjelm, Mogens Bjerg Mogensen

Anode Catalyst Layer Contributing to the Overall Impedance of Polymer Electrolyte Membrane Electrolysis Cells during Water Electrolysis - A Hypothesis

#### 09:50 to 10:10

**Frederic Jaouen** (*ICGM UMR CNRS 5253, CNRS, Montpellier, France*), Barbara Rodriguez-Garcia, Alvaro Reyes-Carmona, Ignacio Jimenez-Morales, Marta Blasco-Ahicart, Sara Cavaliere, Deborah Jones, Jose-Ramon Galan-Mascaros

Cobalt hexacyanoferrate supported on  ${\rm Sb\text{-}SnO_2}$  a promising non-noble anode catalyst for PEM water electrolyzers

#### 10:10 to 10:30

Sanjeev Mukerjee (Chemistry, Northeastern University, Boston, USA), Nagappan Ramaswamy, Shraboni Ghoshal, Qingying Jia

Engendering Reversibility to Hydrogen Evolution and Oxidation Reaction at High PH Environments

#### 10:30 to 10:45

# S07 Supercapacitors from Materials and Processes to Applications

### Room: 557

Chaired by: Bruce Dunn

09:30 to 09:50

**Jacob Ketter** (*Electrochemistry, Gamry Instruments, Warminster, USA*), Dominic Moosbauer Overcoming Challenges Associated With Obtaining Accurate Impedance of Large EDLCs

09:50 to 10:10

**John Miller** (*JME*, *Inc and Case Western Reserve University*, *Beachwood*, *USA*), S.M. Butler, M. Antloga, B. Segel, Robert Savinell

Drying of Non-aqueous-electrolyte Electric Double Layer Capacitors

10:30 to 10:45 Coffee Break

# S08 Dealloying: Fundamentals, Application, and Control

# Room: 551A

Chaired by: Nikolay Dimitrov

09:30 to 10:10 Keynote

**Karl Sieradzki** (*SEMTE*, *Arizona State University*, *Tempe*, *USA*), Ke Geng, Qing Chen Morphology Evolution During Dealloying at High and Low Homologous Temperature

10:10 to 10:30 Invited

**Roger Newman** (Chemical Engineering and Applied Chemistry, University of Toronto, Toronto, Canada), Ayman El-Zoka, Brian Langelier, Gianluigi Botton

Advanced Characterization and Properties of Dealloyed Layers on AgAu(Pt) Alloys

10:30 to 10:45 Coffee Break

# S09 Ionic Liquids as Media for Electrochemical Synthesis

#### Room: 556A

Chaired by: Toshiyuki Nohira

09:30 to 09:50

**Charles Hussey** (*Chemistry and Biochemistry, University of Mississippi, University, USA*), Li-Hsien Chou Heterogeneous Electron Transfer Kinetics of the [CeCl<sub>6</sub>] <sup>-/-</sup> Redox Reaction in Ionic Liquids Based on the Bis(trifluoromethylsulfonyl)imide Anion

09:50 to 10:10

**Atsushi Kitada** (*Materials Science and Engineering, Kyoto University, Kyoto, Japan*), Shun Takeoka, Kohei Kintsu, Kazuhiro Fukami, Kuniaki Murase

An Equimolar Ternary Molten Mixture of Crownether–Water–Imide Superacid: A Hydronium Solvate Ionic Liquid with Strong Acidity

10:10 to 10:30

Hao-Wei Pang (Chemical Engineering, National Taiwan University, Taipei, Taiwan)

Nanofibers of Imino-Imidazolium Iodide Grafted Hexafluoropropylene as the Quasi-Solid-State Electrolyte for Dye-Sensitized Solar Cells

10:30 to 10:45 Coffee Break

# S11 Synthesis and Applications of Electrochemically Active Materials

# Room: 553

Chaired by: Giovanni Zangari

#### 09:30 to 09:50 Invited

**Marco Musiani** (*ICMATE*, *CNR*, *Padova*, *Italy*), Sandro Cattarin, Nicola Comisso, Paolo Guerriero, Luca Mattarozzi, Lourdes Vázquez-Gómez, Enrico Verlato

An Electrochemical Study of the PbO<sub>2</sub>/Mn<sup>2-</sup> Galvanic Displacement Reaction

#### 09:50 to 10:10

**Yin Xu** (*Materials Science and Engineering*, *University of Virginia*, *Charlottesville*, *USA*) Hydrogen/Nitrogen Doped Anatase TiO<sub>2</sub> for Photoelectrochemical Splitting of Water

#### 10:10 to 10:30 Invited - ISE Prize for Electrochemical Materials Science

Claire Villevieille (Electrochemistry Laboratory, Paul Scherrer Institute, Villigen PSI, Switzerland), Cyril Marino Designing low cost Na-ion batteries

#### 10:30 to 10:45

Coffee Break

# S11 Synthesis and Applications of Electrochemically Active Materials

# Room : 551B

Chaired by: Ross Milton

#### 09:30 to 09:50

**Xuan Zhang** (College of Chemistry, Chemical Engineering & Biotechnology, Donghua University, Shanghai, China)

Self-Assembly of Fullerene-Graphene Supramolecular Hybrid and its Application as Pd Electrocatalyst Support for Direct Methanol Fuel Cells

#### 09:50 to 10:10

Rafael Colombo (Chemistry Institute, University of São Paulo, São Paulo, Brazil), Gabrielle da Silva, Susana Cordoba de Torresi

Electrodeposition of Metals on Porous Polymeric Templates for Raman Spectroscopy and Sensing

#### 10:10 to 10:30 Invited

**Zbigniew Stojek** (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Marcin Mackiewicz, Kamil Marcisz, Marcin Strawski

Modification of Gold Electrode with Monolayer of Environmentally Sensitive Microgels

#### 10:30 to 10:45

# S12 Electrochemical Technology for solving 21st Century Challenges

### Room: 555B

Chaired by: Robert Savinell and Joaquin Rodriguez-Lopez

09:30 to 09:50

**Beatriz Mingo** (School of Materials, University of Manchester, Manchester, United Kingdom), Aleksey Yerokhin, Allan Matthews

Active Functionalization of Plasma Electrolytic Oxidation Coatings

09:50 to 10:10

**Trevor Braun** (Material Science and Engineering Division, National Institute of Standards and Technology, Gaithersburg, USA), Thomas Moffat

Ultramicroelectrode Studies of the Additive Derived Critical Breakdown in S-NDR Copper Electrodeposition

10:10 to 10:30

**Nicolas Laugel** (School of Materials, University of Manchester, Manchester, United Kingdom), Allan Matthews, Aleksey Yerokhin

In Situ Characterization of Electrolytic Plasma Polishing Correlated with Effective Surface State Changes in Ti

10:30 to 10:45

Coffee Break

# S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

### Room: 552B

Chaired by: Frederic Maillard and Mikhail Vorotyntsev

09:30 to 09:50

**Kyoungmin Min** (*Platform Technology Lab, Samsung Advanced Institute of Technology, Suwon, Korea*), Kwangjin Park, Seung-Woo Seo, Byungjin Choi, Eunseog Cho

Improved electrochemical properties of  $\text{LiNi}_{0.91}\text{Co}_{0.06}\text{Mn}_{0.03}\text{O}_2$  cathode material via Li-reactive coating with metal phosphates: First-principles based screening and experimental verification

09:50 to 10:10

**Javad Hashemi** (*Dept of Engineering, Unit 1, Providence, USA*), Martha Gialampouki, Andrew Peterson Computational Modeling of Solid Electrolyte Interphase Formation in Lithium-Ion Batteries

10:10 to 10:30

**Frederic Maillard** (*LEPMI*, *CNRS*, *Saint Martin d'Heres*, *France*), Raphael Chattot, Tristan Asset, Jakub Drnec, Pierre Bordet, Jaysen Nelayah, Laetitia Dubau

Seeing Inside a Growing Catalyst

10:30 to 10:45

# S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

#### Room: 554

Chaired by: Petr Krtil and Dan Bizzotto

09:30 to 09:50

**Ludwig Kibler** (*Institute of Electrochemistry, University of Ulm, Ulm, Germany*), Johannes Hermann Formate Oxidation on Au(111) Electrodes

09:50 to 10:10

**Erlend Bertheussen** (*Department of Physics, Technical University of Denmark, Kgs. Lyngby, Denmark*), Thomas Vagn Hogg, Younes Abghoui, Joseph H. Montoya, Jens K. Nørskov, Ib Chorkendorff, Ifan E.L. Stephens Elucidation of pathways towards multi-carbon products during CO reduction on Cu electrodes

10:10 to 10:30

**YuYe J. Tong** (Department of Chemistry, Georgetown University, Washington, USA), Dejun Chen, Thomas C. Allison

New Mechanistic Insights into Solution CO Electro-oxidation on Au Surface in Acidic vs Alkaline Electrolyte by Surface-Enhanced IR Spectroscopy

10:30 to 10:45

Coffee Break

# S17 Advances in Theory and Modeling of Electrochemical Systems

### Room: 552A

Chaired by: Peter Notten

09:30 to 09:50

Eckhard Spohr (Department of Chemistry, University Duisburg-Essen, Essen, Germany)

Local and Global Electric Driving Forces for Proton Discharge from Aqueous Solutions on Charged Electrodes. MD Trajectory Simulations

09:50 to 10:10

**Elshad Allahyarov** (Theoretical Physics II, Soft Matter, Heinrich-Heine University, Dusseldorf, Germany), Hartmut Lowen

Simulation Study of Ion Diffusion in Charged Nanopores with Anchored Terminal Groups

10:10 to 10:30

**Charles W. Monroe** (*Department of Engineering Science, University of Oxford, Oxford, United Kingdom*)

Consistent Models for Electrochemical/Mechanical Coupling in Solid Ion Conductors

10:30 to 10:45

# S18 Education for Electrochemistry and Electrochemical Engineering

### Room: Ballroom C

Chaired by: Alejandro A. Franco and Johna Leddy

09:30 to 09:50 Invited

**Alejandro A. Franco** (*Laboratoire de Réactivité et Chimie de Solides (LRCS*), Université de Picardie Jules Verne & CNRS (*UMR 7314*), Amiens, France), Ruijie Zhao, Yinghui Yin, Romain Lelong, Jan Ciger, Indira Thouvenin Combining Multiscale Computational Modeling and Interactive Virtual Reality for Teaching Electrochemical Energy Storage

09:50 to 10:10

**Scott Calabrese Barton** (Dept. of Chemical Engineering & Materials Science, Michigan State University, East Lansing, USA)

Computational Electrochemical Engineering

10:10 to 10:30

Shigeru Amemiya (Chemistry, University of Pittsburgh, Pittsburgh, USA)

COMSOL Finite Element Simulation for Electrochemistry Education and Research

10:30 to 10:45

$\sim$
_
Ö
~
```
ぉ
∺
ಕ
ĭ
=
⋖
-
_
-
,31
,31
day, 31
,31
rsday, 31
ursday, 31
rsday, 31

ROOMS:	Ballroom A	Ballroom B	Ballroom C	Room 550	Room 553	Room 554	Room 557	Room 551A	Room 551B	Room 552A	Room 552B	Room 555A	Room 555B	Room 556A	Room 556B
SYMPOSIUM	Symposium 5		Symposium 6 Symposium 18	Symposium 3	Symposium 11	Symposium 6		Symposium 8	Symposium 11	Symposium 6   Symposium 8  Symposium 11  Symposium 17  Symposium 15	Symposium 15	Symposium 5	Symposium 12 Symposium 13	Symposium 13	Symposium 4
08:15 - 09:15						1	Plenary Lectu	Plenary Lecture: <u>Hector Abruna</u> ( <i>Ballroom A</i> )	ına (Ballroom A)						
09:30 - 08:60	M. Mayur	Z. Xie	D. Scherson	Schoenfisch	P. M. Woi	S. Jilani	Boemaiel	Frlahachar	D. Ziolkowska	D Nothern	T Caving	D. Brandell	P. Los	K Moeller	T. Dong Chung
09:50 - 10:10	Ү. Нма	٥	J. Howell		H. Kanso	K. Ozoemena	0. 1703311GISI	d. Filebadiei	A. Koca	r. Notice	L. Cavillova	P. Cappillino	O. Lefebvre	Z. INOGIE	M. Shen
10:10 - 10:30		o. 600	H. Abruna	A. Lima	M. Santhiago	M. Chatenet	M. Perez-Page	J. Biener	N. Wang	A. Latz	I. Rutkowska	T. Alemu	F. Deng	C. Zeng	A.M. Oliveira
10:30 - 10:45								Coffee Break							
10:50 - 11:10															
11:10 - 11:30															
11:30 - 11:50							<u>ر</u>	General Assembly	-						
11:50 - 12:10							)								
12:10 - 12:30															
12:30 - 12:45															
12:40 - 13:40								Lunch		Division Officers Meeting	Regional Rep.				
SYMPOSIUM	Symposium 5	Symposium 6		Symposium 3	Symposium 11	Symposium 3  Symposium 11   Symposium 6	Symposium 6	Symposium 8	Symposium 11	Symposium 11 Symposium 17 Symposium 15	Symposium 15		Symposium 5  Symposium 12  Symposium 13	Symposium 13	Symposium 4
14:00 - 14:20	Z. Peng	Z. Zeng		A. Killard	D. Hursán	D. Ramani	A. Ishihara	Moion	L. Ruhlmann	U. Krewer	WB. Cai		S. Garcia-Seg.	L Dioz Dároz	) > >
14:20 - 14:40	C. Gaya	H. Yang		W. Schuhmann	YJ. Huang	T. Reshetenko	M. Chisaka	Meissillaellei	B. Yan	V. Laue	V. Di Noto	C. Marino	O. Rodriguez	I. DIEZ-Pelez	7U. VIB
14:40 - 15:00	S. Otsuka	G. Seiffarth		Y. Lei	WT. Chen	J. Malis	C. Dominguez	T. Spassov	A. Bolzan	M. Maiza	A. Fortuin	N. Laszczynski	N. Laszczynski Groenen Ser.	K. Chiba	C. Andronescu
15:00 - 15:20	R. Sun	I. Spanos		M. Gao	H. Takada	Neophytides	T. Wang	F. Maroun	Z. He	L. M. Pant	Z. Zhu	SY. Lim	Martínez-Huitle	B. Schille	A. Tibaldi
15:20 - 15:40	M. Balaish	C. Roy		E. Zhu	F. Simões	M. Lu	P. Atanassov	F. U. Renner	WN. Su	T. Kadyk	U. Biedermann	G. P. Pandey	H. O. Vargas	P. R. Mussini	W. Kutner
15:40 - 16:00	P. Bai	S. Barwe		P. Knysinski	Y. Ismail	V. C. Bassetto	ZY. Zhou	H. You	J. Recio	A. Hubin	P. Hapiot	T. Clancy	M. A. Rodrigo	Y. Birdja	R. Bilewicz
16:00 - 16:20	CC. Chen	F. Dionigi		S. Andreescu	M. Turmine		A. Herring	M. Haensch	E. Lojou	J. Song	V. Tripkovic		R. Esmilaire	C. Lam	S. Krishnan
16:20 - 16:40								Coffee Break							
16:40 - 17:00	T. Otani	S. Dresp		E. Hvastkovs	M. Cao	Krishnamurthy	S. H. Joo	I. Achari	S. Khan	M. Bazant	J. M. Feliu	C. Y. Wu	A. S. Fajardo	aroto C	N Dlaveo
17:00 - 17:20 B	B. Horstmann	J. Masa		Manuel Ping.	D. Chhin	A.K. Engstfeld	JS. Hu	M. Graf	M. Oyama	T. Barrès	M. Jackson	E. Lee	M. Hayashi	D. refers	N. Plaxco
17:20 - 17:40 H	H. Baltruschat	M. Busch		C. Cabrera	A. Auer	R. Kortlever	A. Gewirth	S. Shi	M. Longhi	A. Molina	Z. Jusys	R. Lindström	A. Thiam	F. Geneste	M. Salari
17:40 - 18:00	N. Wagner			S. Rapino	L. Jones	L. Gilson	Y. Nabae		Q. Li	M. Mirzadeh	X. Yang	H. Teng	X. Xu	C. Guetz	GU. Flechsig
18:00 - 18:20										A. Oleinick	W. Wen			T. Broese	
18:20 - 18:40										M. El Khatib					
18:40 - 20:00								Reception							

# Thursday 31 August 2017 - Morning

# Plenary Lecture

# Room: Ballroom A

Chaired by: Philip Bartlett

08:15 to 09:15

**Hector Abruna** (Department of Chemistry & Chemical Biology, Cornell University, Ithaca, USA) Operando Methods for the Study of Energy Materials

# S03 Electrochemical Approaches to Clinical Diagnostics and Medical Devices

### Room: 550

Chaired by: Woonsup Shin

09:30 to 10:10 Keynote

**Mark Schoenfisch** (*Department of Chemistry, University of North Carolina, Chapel Hill, USA*), Micah Brown, Wesley Storm, Jonathan McDunn

Microfluidic Electrochemical Nitric Oxide Sensors for Sepsis Risk Assessment

10:10 to 10:30

**Alex Lima** (Department of Fundamental Chemistry, Institute of Chemistry, University of São Paulo, São Paulo, Brazil), Gabriel Meloni, Aline Barbosa, Simone Motta, Newton Canteras, Mauro Bertotti

Use of an electrochemical sensor in the detection of nitric oxide in periaqueductal gray during optogenetic stimulation

10:30 to 10:45

# S04 Bioelectrochemistry without Borders

# Room: 556B

Chaired by: Jacek Lipkowski and Ana Maria Oliveira-Brett

09:30 to 09:50 Invited

Taek Dong Chung (Chemistry, Seoul National University, Seoul, Korea)

Artificial Synapse between Surface Modified Electrode and Neuron

09:50 to 10:10

Mei Shen (Department of Chemistry, University of Illinois at Urbana-Champaign, Urbana, USA)

Detection of Ionic Neurotransmitters from Single Neuronal Structures via Versatile Nanosensor Probes

10:10 to 10:30

Ana Maria Oliveira-Brett (Department of Chemistry, University of Coimbra, Coimbra, Portugal), Ana-Maria Chiorcea-Paquim, Teodor Adrian Enache

Electrochemistry of Alzheimer Disease Amyloid Beta Peptides

10:30 to 10:45

Coffee Break

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

#### Room: Ballroom A

Chaired by: Yoon Hwa and Manik Mayur

09:30 to 09:50

Manik Mayur (Mechanical Engineering, Offenburg University of Applied Sciences, Offenburg, Germany), Daniel Gruebl, Wolfgang G. Bessler

Two-dimensional modeling and analysis of mass transfer losses in a Li-air button cell for different electrolytes

09:50 to 10:10

**Yoon Hwa** (Energy Storage and Distributed Resources Division, Lawrence Berkeley National Laboratory, Berkeley, USA), Elton Cairns

Li/S Cells with Cetyltrimethylammonium Bromide Modified Sulfur-Graphene Oxide-Carbon Nanotube Electrodes

10:30 to 10:45

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

### Room : 555A

Chaired by: Daniel Brandell and Patrick Cappillino

09:30 to 09:50

**Daniel Brandell** (Department of Chemistry - Ångström Laboratory, Uppsala University, Uppsala, Sweden), Fabian Jeschull

Tailoring the Surface Chemistry of Li-Ion Battery Anodes through the Use of Water-Soluble Functional Binders

09:50 to 10:10

**Patrick Cappillino** (*Chemistry and Biochemistry, University of Massachusetts Dartmouth, North Dartmouth, USA*), Haobo Huang, Rachael Howland, Ertan Agar, Mahnaz Nourani

Bio-Inspired Active Materials for High-Stability Nonaqueous Redox Flow Batteries

10:10 to 10:30

**Tibebu Alemu** (Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei New City, Taiwan), Fu-Ming Wang

The Kinetic Study of Self-terminated Oligomer Branched Architecture (STOBA) in Lithium Ion Battery

10:30 to 10:45

Coffee Break

# S06 Fuel Cells and Electrolyzers

# Room: Ballroom B

Chaired by: Shaojun Guo

09:30 to 09:50

**Zhaoxiong Xie** (Department of Chemistry, Xiamen University, Xiamen, China), Zhenming Cao, Yaqi Jiang, Gang Fu

Hexagonal Close-Packed Platinum-Nickel Alloy Nanostructures and their Superior Activity towards Hydrogen Evolution Reaction

#### 09:50 to 10:30 Keynote - ISE-Elsevier Prize for Applied Electrochemistry

**Shaojun Guo** (Department of Materials Science and Engineering, Peking University, Beijing, China) Tuning the Surface and Interface of Metal-based Nanocrystals for Energy Electrocatalysis

10:30 to 10:45

# S06 Fuel Cells and Electrolyzers

### Room: 557

Chaired by: Akimitsu Ishihara

#### 09:30 to 10:10 Keynote

**Jan Rossmeisl** (Department of Chemistry, University of Copenhagen, København Ø, Denmark)

Electro-Catalysis for Electro-Chemicals

10:10 to 10:30

**Maria Perez-Page** (School of Chemical Engineering and Analytical Science, The University of Manchester, Manchester, United Kingdom), Stuart Holmes

Graphene and graphene oxide in low temperature fuel cells for enhanced performance

10:30 to 10:45

Coffee Break

# S06 Fuel Cells and Electrolyzers

### Room: 554

Chaired by: YuYe J. Tong

09:30 to 09:50

Safia Jilani (Chemistry, Georgetown University, Washington D.C., USA), Daniel Zager, Esther Iyanobor, YuYe J. Tong

Synthesis and Mechanistic Study of Pt-based Tri-metal Catalysts for the Ethanol Oxidation Reaction

09:50 to 10:10

**Kenneth Ikechukwu Ozoemena** (School of Chemistry, University of the Witwatersrand, Johannesburg, South Africa), Paul Ejikeme, Katlego Makgopa, Kumar Raju

Insights into the Promotional Effects of Carbon Nano-Onion Support Towards Glycerol Oxidation Reaction at  $Pd@MnO_2$  Electrocatalyst

10:10 to 10:30

**Marian Chatenet** (*LEPMI*, *Grenoble Institute of Technology* (*Grenoble-INP*), Saint Martin d'Heres, France), Pierre-Yves Olu, Guillaume Braesch, Antoine Bonnefont, Elena Savinova

NaBH<sub>4</sub> concentration effects on the borohydride oxidation reaction (BOR) efficiency and mechanism at gold and platinum electrodes

10:30 to 10:45

# S08 Dealloying: Fundamentals, Application, and Control

# Room: 551A

Chaired by: Thomas Moffat

09:30 to 10:10 Keynote

**Jonah Erlebacher** (*Materials Science and Engineering, Johns Hopkins University, Baltimore, USA*), Ellen Benn Transport and Activity in Dealloyed Nanoporous Electrocatalysts

10:10 to 10:30 Invited

**Juergen Biener** (Nanoscale Synthesis and Characterization Laboratory, Lawrence Livermore National Laboratory, Livermore, USA)

Nanoporous Metals for Energy Applications

10:30 to 10:45

Coffee Break

# S11 Synthesis and Applications of Electrochemically Active Materials

### Room: 553

Chaired by: Massimo Marcaccio

09:30 to 09:50

Pei Meng Woi (Department of Chemistry, University of Malaya, Lembah Pantai, Malaysia), Zohreh Shahnavaz, Yatimah Alias

Electrochemical sensing of glucose by reduced graphene oxide-zinc ferrospinels

09:50 to 10:10

**Hussein Kanso** (*BAE-LBBM*, *Universite de Perpignan*, *Perpignan*, *France*), Nicolas Inguimbert, Amani Ben Jrad, Thierry Noguer, Carole Calas-Blanchard

New Organometallic Tracers for the Development of Electrochemical Affinity Biosensors

10:10 to 10:30

**Murilo Santhiago** (Brazilian Nanotechnology National Laboratory, Brazilian Center for Research in Energy and Materials, Campinas, Brazil), Mathias Strauss, Mariane P. Pereira, Andréia S. Chagas, Carlos C.B. Bufon

Dry Transfer Method of Graphite onto Paper for High Performance Flexible Electrochemical Sensors

10:30 to 10:45

# S11 Synthesis and Applications of Electrochemically Active Materials

# Room: 551B

Chaired by: Ross Milton

09:30 to 09:50

**Dominika Ziolkowska** (Conn Center for Renewable Energy Research, University of Louisville, Louisville, USA), John Dilip Jangam, Gamini Sumanasekera, Jacek Jasinski

Modification of Carbon Nanocages Synthesis for Electrochemical Applications

09:50 to 10:10

Atif Koca (Chemical Engineering Department, Marmara University, Istanbul, Turkey)

Solid State Electropolmerization of Manganese Phthalocyanine coated with Langmuir-Blodgett and Click Electrochemistry

10:10 to 10:30

**Nianxing Wang** (*Department of Chemistry, University of Turku, Turku, Finland*), Pia Damlin, Carita Kvarnström Viologen Based Redox Composite Films: Electrochemical Synthesis and Characterization

10:30 to 10:45

Coffee Break

# S12 Electrochemical Technology for solving 21st Century Challenges

# Room: 555B

Chaired by: Karel Bouzek and Manuel Andres Rodrigo

09:30 to 09:50

Przemyslaw Los (Electrochemistry, Industrial Chemistry Research Institute, Warsaw, Poland), Aneta Lukomska Potential Controlled Electrolysis as a New Industrial Scale Electrochemical Process of Metals Recovery and Manufacturing

09:50 to 10:10

**Olivier Lefebvre** (Department of Civil and Environmental Engineering, National University of Singapore, Singapore, Singapore), Orlando Garcia-Rodriguez, Yi Yang Lee

Enhancement of hydrogen peroxide generation through a graphene-based gas diffusion cathode and its application for the mineralization of real electronic wastewater by electro-Fenton

10:10 to 10:30

**Fengxia Deng** (Department of Civil and Environmental Engineering, National University of Singapore, Singapore, Singapore), Hugo Olvera Vargas, Si Rong Geh, Olivier Lefebvre

Exploring a novel tetrapolyphosphate/electro-Fenton system at near-neutral pH with a Ni-Fe-Foam cathode for the treatment of electronics wastewater

10:30 to 10:45

# S13 The Green Potential of Molecular Electrochemistry

# Room : 556A

Chaired by: Daniel Little

#### 09:30 to 10:10 Keynote

Kevin Moeller (Chemistry, Washington University in St. Louis, St. Louis, USA)

From Complex Molecules to Controlling Molecular Surfaces: Electrochemistry as a Tool for Synthesis

#### 10:10 to 10:30 Invited

**Chengchu Zeng** (College of Life Science & Bioengineering, Beijing University of Technology, Beijing, China), Sen Liang, Yangye Jiang

Electrochemically oxidative formation of new chemical bonds mediated by halide ion

#### 10:30 to 10:45

Coffee Break

# S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

### Room: 552B

Chaired by: Dan Bizzotto

#### 09:30 to 10:10 Keynote

Elena Savinova (ECPM, University of Strasbourg, Strasbourg, France)

Understanding Electrocatalysis on Transition Metal Oxides using Near-Ambient Pressure XPS and Soft X-Ray Spectroscopy

#### 10:10 to 10:30

**Iwona A. Rutkowska** (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Anna Wadas, Pawel J. Kulesza

Structure and Reactivity of Metal-Oxide-Supported Noble Metal Nanoparticles: Electrooxidation of Simple Organic Molecules

#### 10:30 to 10:45

# S17 Advances in Theory and Modeling of Electrochemical Systems

# Room: 552A

Chaired by: Martin Bazant

09:30 to 10:10 Keynote

**Peter Notten** (*Chemical Engineering and Chemistry, Eindhoven University of Technology, Eindhoven, Netherlands*), Dongjiang Li, Dmitri Danilov, Lu Gao, Yong Yang

Modeling and experimental validation of Li-ion (LFP) degradation

10:10 to 10:30 Invited

**Arnulf Latz** (Computational Electrochemistry, German Aerospace Center and Helmholtz Institute Ulm, Ulm, Germany), Fabian Single, Birger Horstmann

Predicting SEI Morphology from Transport and Reaction Kinetics

10:30 to 10:45

Coffee Break

# S18 Education for Electrochemistry and Electrochemical Engineering

# Room: Ballroom C

Chaired by: Ignacio Gonzalez, Jorge Ibanez and Mark Orazem

09:30 to 09:50

**Daniel Scherson** (*Chemistry, Case Western Reserve University, Cleveland, USA*), Nicholas Georgescu Theoretical Analysis of Microelectrode Arrays under Forced Convection

09:50 to 10:10

**Jonathon Howell** (R&D, Emergent Instruments Inc., West Lafayette, USA), Irina Svir, Oleksiy Klymenko, Christian Amatore

Use of KISSA-1D® Electrochemical Reaction Mechanisms Simulation Software for Teaching

10:10 to 10:30

**Hector Abruna** (Department of Chemistry & Chemical Biology, Cornell University, Ithaca, USA)

Overpotentials Always Reflect Kinetics: The Need for Rigorous Teaching of Electrochemical Phenomena

10:30 to 10:45

# Thursday 31 August 2017 - Afternoon

# S03 Electrochemical Approaches to Clinical Diagnostics and Medical Devices

# Room: 550

Chaired by: Fethi Bedioui, Langun Mao and Mark Schoenfisch

#### 14:00 to 14:20 Invited

**Anthony Killard** (Department of Applied Sciences, University of the West of England, Bristol, United Kingdom) Electrochemical diagnostic devices based on organic and printed electronic integration

#### 14:20 to 14:40

Wolfgang Schuhmann (Analytical Chemistry - Center for Electrochemical Sciences, Ruhr-Universität Bochum, Bochum, Germany), Daliborka Jambrec, Ugur Kayran, Nergis Cinar, Felipe Conzuelo, Tsvetan Tarnev Understanding electrified interfaces as a prerequisite for improved DNA hybridization detection

#### 14:40 to 15:00 Invited

Yu Lei (Department of Chemical and Biomolecular Engineering, University of Connecticut, Storrs, USA)
Glucose Monitoring: Enzymatic vs Non-enzymatic

#### 15:00 to 15:20

Ming Gao (Department of Chemical Engineering, University of Florida, Gainesville, USA), Morgan Harding, Rui Kong, Mark Orazem

The Development of a Mathematical Model for Electrochemical Impedance Response of Continuous Glucose Monitor

#### 15:20 to 15:40

**Enhua Zhu** (*Chemistry, Sogang University, Seoul, Korea*), Yunhye Kwon, Semi Son, Woonsup Shin Development of Miniaturized Non-gassing Electroosmotic Pump for Drug Delivery

#### 15:40 to 16:00

**Pawel Krysinski** (Faculty of Chemistry, University of Warsaw, Warsaw, Poland), Dorota Nieciecka, Aleksandra Joniec, Anna Niescioruk, Anna Puszko, Monika Szlezak, Aleksandra Misicka-Kesik, Renata Bilewicz, Aleksandra Szuplewska, Michal Chudy

Surface- and Core-Modified Nanoferrites as Tools for Magnetic Field-Assisted Targeted Drug Delivery. Electrochemical and Spectroscopic Studies

#### 16:00 to 16:20

**Silvana Andreescu** (*Chemistry and Biomolecular Science, Clarkson University, Potsdam, USA*), Eduard Dumitrescu, Xiaobo Liu, Kenneth Wallace

Electrochemical Quantification of Neurotransmitters in Live Embryonic Zebrafish

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00 Invited

**Eli Hvastkovs** (*Chemistry*, *East Carolina University*, *Greenville*, *USA*), Christian Melander, Eric Anderson, Meghan Blackledge, Alex Robb, Victoria Preston, Sergey Vinogradov

Electrochemical Detection of Biofilm Dispersion

#### 17:00 to 17:20

**José Manuel Pingarrón** (Analytical Chemistry, Complutense University of Madrid, Madrid, Spain), Susana Campuzano, Rebeca M. Torrente-Rodríguez, Víctor Ruiz-Valdepeñas Montiel, Eva Vargas, Rodrigo Barderas Reliable and Non-invasive Electroanalytical Biosensing of Cancer Biomarkers for Early Diagnosis

#### 17:20 to 17:40

**Carlos Cabrera** (*Department of Chemistry, University of Puerto Rico*, *Rio Piedras Campus, San Juan, Puerto Rico*), Lisandro Cunci, Diana Coral Diaz, Griselle Hernandez, Vilynette Santiago, Carlos Gonzalez

Telomerase Activity Sensing from Cancer Cells using Label-Free Electrochemical Impedimetric Microchip

#### 17:40 to 18:00

**Stefania Rapino** (*Chemistry Department Giacomo Ciamician, University of Bologna, Bologna, Italy*), Luca Bartolini, Alice Soldà, Giovanni Valenti, Francesco Valle, Pier Giuseppe Pelicci, Cristiano Albonetti, Francesco Zerbetto, Francesco Paolucci

Micro and Nano-structured Materials Shape Living Cells: a Scanning ElectroChemical Microscopy Study

# S04 Bioelectrochemistry without Borders

### Room: 556B

Chaired by: Lars J.C. Jeuken and Sadagopan Krishnan

#### 14:00 to 14:40 Keynote

Xing-Hua Xia (School of Chemistry and Chemical Engineering, Nanjing, China), Chen Wang, Yue Zhou, Yi Shi Strategies for accelerating electrochemical reactions

#### 14:40 to 15:00

**Corina Andronescu** (Analytical Chemistry – Center for Electrochemical Sciences, Ruhr-Universität Bochum, Bochum, Germany), Thomas Quast, Wolfgang Schuhmann

Electrolyte Gated Reduced Graphene Oxide-Based Field-Effect Transistor Sensors

#### 15:00 to 15:20

Alexandra Tibaldi (Chemistry Department, University Paris Diderot, Paris, France), Vincent Noel, Benoit Piro, Giorgio Mattana, Marion Woytasik

Immunoassay Read-Out System Based on Electrolyte-Gated Organic Field-Effect Transistors

#### 15:20 to 15:40

Wlodzimierz Kutner (Department of Physical Chemistry of Supramolecular Complexes, Institute of Physical Chemistry, Polish Academy of Sciences, Warsaw, Poland), Marcin Dabrowski, Piyush Sharma, Zofia Iskierko, Krzysztof Noworyta, Maciej Cieplak, Wojciech Lisowski, Sylvia Oborska, Alexander Kuhn, Agnieszka Wojnarowicz, Marta Sosnowska, Tan-Phat Huynh, Maria Pszona, Pawel Borowicz, Tiziana Benincori, Francis D'Souza

Electrochemical Molecular Imprinting for Selective Determination of Chosen Biomarkers

#### 15:40 to 16:00

Renata Bilewicz (Chemistry, University of Warsaw, Warsaw, Poland), Ewa Nazaruk, Martina Zatloukalova, Ehud Landau

Electrochemical behavior of membrane proteins reconstituted in lipidic liquid crystalline cubic phases

#### 16:00 to 16:20 Invited

**Sadagopan Krishnan** (*Chemistry, Oklahoma State University, Stillwater, USA*), Charuksha Walgama, Gayan Premaratne, Rajasekhara Nerimetla, Asantha Dharmaratne, Jinesh Niroula

Bio-electrocatalysis using magnetic nanoparticles and carbon nanostructures

#### 16:20 to 16:40

#### 16:40 to 17:20 Keynote

**Kevin Plaxco** (*Chemistry and Biochemistry, University of California, Santa Barbara, Santa Barbara, USA*)

Counting Molecules, Dodging Blood Cells: Real-time Molecular Measurements Directly in the Living Body

#### 17:20 to 17:40

Maryam Salari (Department of Chemistry, Boston University, Boston, USA), Allison Dennis, Catherine Klapperich, James Galagan, Mark W. Grinstaff

Towards Continuous Self-empowered Glucose Detection

#### 17:40 to 18:00

**Gerd-Uwe Flechsig** (*Dept. of Chemistry, University at Albany - SUNY, Albany, USA*), Sarasi Galagedera, Jörg Peter Effect of Heavy Water on Redox-switching of DNA Self-Assembled Monolayers observed by EQCM and Cyclic Voltammetry

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

#### Room: Ballroom A

Chaired by: Mickdy Milien and Bharathy Subramanian Parimalam

#### 14:00 to 14:20

**Zhangquan Peng** (Changchun Institute of Applied Chemistry, Chinese Academy of Science, Changchun, China), Xinmin Zhang, Limin Guo, Linfeng Gan, Yantao Zhang, Jin Wang, Lee Johnson, Peter Bruce

Chemical Reactivity of Reduced Oxygen Species in Alkali-Oxygen Batteries

#### 14:20 to 14:40

**Caroline Gaya** (*More Electrical Aircraft, IRT Saint Exupery, Toulouse, France*), Amangeldi Torayev, Yinghui Yin, Christine Surcin, Dominique Larcher, Benoit Fleutot, Mathieu Morcrette, Alejandro A. Franco

Impacts of the Electrode Fabrication Process on the Performances of Lithium-Oxygen Batteries

#### 14:40 to 15:00

Satoshi Otsuka (Materials Science and Technology, Nagaoka University of Technology, Nagaoka, Japan), Koutaro Konakawa, Yoshitsugu Sone, Minoru Umeda

Reversible Capacity Deterioration of 18650-type Lithium-ion Secondary Cell Investigated by dQ/dV-V Curve at 5-25 degree C

#### 15:00 to 15:20

**Ruoheng Sun** (*Institute of Energy and Climate Research (IEK-9*), Forschungszentrum Juelich GmbH, Juelich, Germany), Peter Jakes, Svitlana Eurich, Hans Kungl, Rüdiger-A. Eichel

Quantification on Traces of  $\text{Li}_2\text{MnO}_3$  in Li-rich Manganese Spinel by Electron Paramagnetic Resonance (EPR) and its Consequence on the Stoichiometry of  $\text{Li}_{1+x}\text{Mn}_{2-x}\text{O}_{4-d}$ 

#### 15:20 to 15:40

**Moran Balaish** (GTEP and Materials Science and Engineering, Technion-Israel Institute of Technology, Haifa, Israel), Yair Ein-Eli

Advanced Li-O<sub>2</sub> Battery Utilizing Free-Standing Meso-pores Carbon Nano-tubes (CNTs) Tissues-Perfluorocarbons (*PFCs*) Hybrid Air-electrodes

#### 15:40 to 16:00

**Peng Bai** (*Chemical Engineering, MIT, Cambridge, USA*), Miao Wang, Liang Su, Akihiro Kushima, Ju Li, Fikile Brushett, Martin Bazant

Growth Mechanisms and Safety Boundaries of Lithium Metal Anodes in Liquid Electrolytes

16:00 to 16:20

Chia-Chin Chen (Physical Chemistry of Solids, Max Planck Institute for Solid State Research, Stuttgart, Germany), Lijun Fu, Joachim Maier

Job-Sharing Storage in Composite Electrodes

16:20 to 16:40

Coffee Break

16:40 to 17:00

**Tomohiro Otani** (Department of Advanced Science and Engineering, Waseda University, Shinjuku, Japan), Yuta Masuda, Yasuhiro Fukunaka, Takayuki Homma

Analysis on Growth Process of Irregular Shaped Zn Electrodeposits and Roles of Metal Additives

17:00 to 17:20

**Birger Horstmann** (*Helmholtz Institute Ulm, German Aerospace Center, Ulm, Germany*), Tobias Schmitt, Max Schammer, Simon Clark, Arnulf Latz

Zinc Batteries with Novel Electrolytes

17:20 to 17:40

**Helmut Baltruschat** (*Electrochemistry*, *Bonn University*, *Bonn*, *Germany*), Abdelaziz Abd-El-Latif, Philipp Hegemann, Da Xing, Lingxing Zan, Martina Hegemann

Insertion / De-insertion of Magnesium into the Sb, Bi and Sn Modified Au Electrode

17:40 to 18:00

**Norbert Wagner** (*German Aerospace Center (DLR*), Institute for Engineering Thermodynamics, Stuttgart, Germany), Brigitta Sievert, Joachim Häcker, Kaspar Andreas Friedrich

Magnesium Sulfur Batteries

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

### Room: 555A

Chaired by: Zachary Brown and Nina Laszczynski

14:20 to 14:40

**Cyril Marino** (*Electrochemistry Laboratory, Paul Scherrer Institut, Villigen, Switzerland*), Mario El Kazzi, Erik J. Berg, Minglong He, Claire Villevieille

Interface and safety properties of phosphorus-based negative electrodes for Li-ion batteries

14:40 to 15:00

Nina Laszczynski (Department of Chemistry, University of Rhode Island, Kingston, USA), Bo Zhang, Brett Lucht Understanding Electrolyte Decomposition of High Ni-NCM at Elevated Operating Voltage

15:00 to 15:20

**Seh-Yoon Lim** (School of Advanced Materials Science and Engineering, Sungkyunkwan University - Suwon Campus, Suwon, Korea)

Silicon Nanowire Cocooned in Graphene like Carbon with One-Dimensional Si Anode for Lithium-ion Battery

15:20 to 15:40

**Gaind P. Pandey** (*Department of Chemistry, Xavier University of Louisiana, New Orleans, USA*), Jun Li A Highly Stable Solid-State Battery-Supercapacitor Hybrid Device based on Three-Dimensional Nanostructured Array Electrodes and a Gel Polymer Electrolyte

15:40 to 16:00

**Tomás Clancy** (*Tyndall National Institute, University College Cork, Cork, Ireland*), Louise McGrath, James Rohan High power thin film LiCoO<sub>2</sub> for wireless sensor applications

16:20 to 16:40

**Coffee Break** 

16:40 to 17:00

Cheng Yu Wu (Department of Materials Science and Engineering,, National Tsing Hua University, Hsinchu, Taiwan), Jenq-Gong Duh

A New Ionic Network for Aqueous Polymer Binder for Enhancing the Electrochemical Performance of Li-Ion Batteries

17:00 to 17:20

Eungje Lee (Chemical Science and Engineering Division, Argonne National Laboratory, Lemont, USA), Joong Sun Park, Hacksung Kim, Qianqian Li, Fernando Castro, Jinsong Wu, Vinayak Dravid, Soo Kim, Christopher Wolverton, Pengfei Yan, Chongmin Wang, Roy Benedek, Jason Croy, Michael Thackeray

Coherently Integrated Layered-Spinel Cathodes for Lithium-Ion Batteries

17:20 to 17:40

**Rakel Wreland Lindström** (*Chemical Engineering, KTH Royal Institute of Technology, Stockholm, Sweden*), Abdilbari S. Mussa, Matilda Klett, Göran Lindbergh

Effect of stack pressure on the performance and ageing of lithium-ion batteries

17:40 to 18:00

**Hsisheng Teng** (Chemical Engineering, National Cheng Kung University, Tainan, Taiwan), Yong-Yi Lin, Yen-Ming Chen

Gel Polymer-Ceramic Composites with an Asymmetric Configuration as Functional Electrolyte for Full-Cell Lithium Ion Batteries

# S06 Fuel Cells and Electrolyzers

# Room: Ballroom B

Chaired by: Justus Masa and Ioannis Spanos

14:00 to 14:20

**Zhenhua Zeng** (*School of Chemical Engineering*, *Purdue University*, *West Lafayette*, *USA*), Jeff Greeley Stabilization of Ultrathin (*Hydroxy*)oxide Films on Transition Metal Substrates for Electrocataysis

14:20 to 14:40

**Hongzhou Yang** (*Dioxide Materials, Boca Raton, USA*), Zengcai Liu, Syed Sajjad, Richard I. Masel Alkaline Water Electrolyzers with Base Metal Catalysts Showing 1 A/cm<sup>2</sup> At 1.75 V

14:40 to 15:00

**Gerda Seiffarth** (*Technical Chemistry, Martin Luther University Halle-Wittenberg, Halle, Germany*), Michael Bron

Incorporation of active impurities in nickel oxide leading to an improved activity for oxygen evolution reaction

#### 15:00 to 15:20

**Ioannis Spanos** (Heterogeneous Reactions, Max Planck Institute for Chemical Energy Conversion, Muelheim an der Ruhr, Germany), Anna K. Mechler, Alexander A. Auer, Robert Schlögl

Electrochemical Flow Cell/ICP-OES Setup for Investigations of the Oxygen Evolution Reaction

#### 15:20 to 15:40

**Claudie Roy** (*Physics*, *Technical University of Denmark*, *Kgs. Lyngby*, *Denmark*), Bela Sebok, Elisabetta Maria Fiordaliso, Anders Bodin, Christian Damsgaard, Jakob Kibsgaard, Ifan E.L. Stephens, Ib Chorkendorff

Mass-Selected NiFe(OOH) Nanoparticles for Oxygen Evolution

#### 15:40 to 16:00

**Stefan Barwe** (Analytical Chemistry - Center for Electrochemical Sciences, Ruhr-Universität Bochum, Bochum, Germany), Justus Masa, Corina Andronescu, Bastian Mei, Wolfgang Schuhmann, Edgar Ventosa

Overcoming the instability of nanoparticle based catalyst films in alkaline electrolysers by self-assembling and self-healing films

#### 16:00 to 16:20

**Fabio Dionigi** (*Institut fuer Chemie, Technische Universitaet Berlin, Berlin, Germany*), Thomas Merzdorf, Hannes Sarodnik, Arno Bergmann, Jakub Drnec, Peter Strasser

*In Operando* X-ray Based Structural Investigation of NiFe and CoFe Layered Double Hydroxide during the Oxygen Evolution Reaction

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00

**Soeren Dresp** (Department of Chemistry, Technical University Berlin, Berlin, Germany), Fabio Dionigi, Peter Strasser

Selective Oxygen Evolution Reaction in Seawater Electrolysers by using NiFe-LDH as Highly Efficient Catalyst Material

#### 17:00 to 17:20

**Justus Masa** (Analytical Chemistry & Center for Electrochemical Sciences, Ruhr-University Bochum, Bochum, Germany), Ilya Sinev, Beatriz Roldan Cuenya, Wolfgang Schuhmann

Metal-metalloid alloys in electrocatalysis: Nature of the catalysts under reaction conditions and promotional role of the metalloid elements

#### 17:20 to 17:40

Michael Busch (Department of Physics, Chalmers University of Technology, Gothenburg, Sweden), Baochang Wang, Anders Hellman, Henrik Grönbeck

Tuning Electrocatalysts through Doping

#### 17:40 to 18:00

**Tom Breugelmans** (Faculty of Applied Engineering, University of Antwerp, Wilrijk, Belgium), Bart Geboes, Annick Hubin

Evaluating several activity enhancement strategies in Pt based nanoparticle catalysts for the oxygen reduction reaction in fuel cells

# S06 Fuel Cells and Electrolyzers

### Room: 557

Chaired by: Plamen Atanassov and Yuta Nabae

#### 14:00 to 14:20 Invited

**Akimitsu Ishihara** (*Institute of Advanced Sciences, Yokohama National University, Yokohama, Japan*), Satoshi Tominaka, Takaaki Nagai, Yoshiyuki Kuroda, Koichi Matsuzawa, Teko Napporn, Shigenori Mitsushima

Development of Group 4 and 5 Oxide-Based Cathodes for PEFCs

#### 14:20 to 14:40

**Mitsuharu Chisaka** (*Department of Sustainable Energy, Hirosaki University, Hirosaki, Japan*), Yusuke Yamamoto, Yuhei Hattori, Noriaki Itagaki

A Carbon-Support-free Titanium Oxynitride Catalyst with Improved Activity for Oxygen Reduction Reaction in Acidic Media

#### 14:40 to 15:00

**Carlota Dominguez** (*School of Chemistry, Trinity College Dublin, Dublin, Ireland*), Serban Stamatin, James A. Behan, Md. Khairul Hoque, Joana M. Vasconcelos, Tatiana S. Perova, Paula E. Colavita

Graphitic nitrogen-doped electrodes as model catalysts for oxygen reduction reaction

#### 15:00 to 15:20

Tao Wang (Chemistry Department, Xiamen University, Xiamen, China), Xiao-Dong Yang, Zhi-You Zhou, Shi-Gang Sun

Active Site of Nitrogen Doped Carbon Graphene Identified by Selectively Chemical Modification

#### 15:20 to 15:40

**Plamen Atanassov** (Chemical & Biological Engineering, University of New Mexico, Albuquerque, USA), Ivana Matanovic, Kateryna Artyushkova

Structure-to-Property Relationships in PGM-free Catalysts: Integrating DFT and Spectroscopic Approaches

#### 15:40 to 16:00

**Zhi-You Zhou** (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Yu-Cheng Wang, Shi-Gang Sun

Insight into the instability of pyrolyzed Fe/N/C catalyst for oxygen reduction reaction

#### 16:00 to 16:20

**Andrew Herring** (Chemical and Biological Engineering, Colorado School of Mines, Golden, USA), Andrew Motz, Mei-Chen Kuo, Tara Pandey

A Practical Fuel Cell Membrane based on an Heteropoly Acid Functionalized Perfluorinated Polymer for Hotter and Drier Operation

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00

**Sang Hoon Joo** (School of Energy and Chemical Engineering, Ulsan National Institute of Science and Technology (UNIST), Ulsan, Korea), Young Jin Sa, Kim Jae Hyung, Woo Jinwoo

Synthetic Strategies toward M-N/C Electrocatalysts with Abundant Active Sites for Efficient Oxygen Reduction Reaction

### 17:00 to 17:20

**Jin-Song Hu** (CAS Key Lab of Molecular Nanostructure and Nanotechnology, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China)

Designing Non-Precious Metal Nanocatalysts for Fuel Cells

#### 17:20 to 17:40

Andrew Gewirth (Chemistry, University of Illinois, Urbana, USA), Jason Varnell, Angela Diascro

Carbon-encapsulated iron nanoparticles as active species in non-precious metal oxygen reduction catalysts

#### 17:40 to 18:00

**Yuta Nabae** (Department of Materials Science and Engineering, Tokyo Institute of Technology, Tokyo, Japan), Azhagumuthu Muthukrishnan

A Novel RRDE Theory to Correct Quasi-Four Electron Oxygen Reduction over Fe/N/C Cathode Catalysts

# S06 Fuel Cells and Electrolyzers

### Room: 554

Chaired by: Jakub Malis and Stylianos G. Neophytides

#### 14:00 to 14:20

**Dilip Ramani** (*Mechatronic Systems Engineering, SFU Fuel Cell Research Laboratory (FCReL*), Surrey, Canada), Yadvinder Singh, Robin White, Marina Najm, Alex Boswell, Francesco Orfino, Monica Dutta, Erik Kjeang

Novel insights into mechanical degradation of reinforced fuel cell membranes using 3D in situ structural characterization

#### 14:20 to 14:40

**Tatyana Reshetenko** (*Hawaii Natural Energy Institute, University of Hawaii, Honolulu, USA*), Vincent Laue, Ulrike Krewer, Kateryna Artyushkova

Effect of Reduced Pt Loading on Spatial PEMFC Performance under SO<sub>2</sub> Poisoning

#### 14:40 to 15:00

**Jakub Malis** (Department of Inorganic Technology, University of Chemistry and Technology Prague, Prague, Czech Republic), Martin Paidar, Karel Bouzek

Design and comparison different power management systems for mobile APU based on PEM fuel cell

#### 15:00 to 15:20

**Stylianos G. Neophytides** (Chemical Engineering Department, FORTH-ICEHT, University of Patras, Patras, Greece), Panagiotis Giotakos

Relaxation Impedance and Identification of Oxygen Reduction Reaction Mechanism in HT-PEMFCs by Simulating AC Impedance Spectra

#### 15:20 to 15:40

Min Lu (Institute of Advanced Materials, Nanjing Tech University, Nanjing, China), Sam Fong Yau Li, Xiaoji Xie, How Yong Ng, Wei Huang

Electrode optimization and practical application of microbial fuel cells

#### 15:40 to 16:00

**Victor Costa Bassetto** (EPFL SB ISIC LEPA, Ecole Polytechnique Fédérale de Lausanne, Sion, Switzerland), Hubert H. Girault, Andreas Lesch

Inkjet printing of catalyst gradients for bi-functional catalyst layers for the ORR and OER

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00

**Dilip Krishnamurthy** (*Mechanical Engineering, Carnegie Mellon University, Pittsburgh, USA*), Venkatasubramanian Viswanathan

Structure-Activity Descriptors for Transition Metal Sulfides Reactivity for Oxygen Reduction Reaction

#### 17:00 to 17:20

**Albert K. Engstfeld** (*Department of Physics, Technical University of Denmark, Lyngby, Denmark*), Erlend Bertheussen, Thomas Vagn Hogg, Thomas Maagaard, Sebastian Horch, Ifan E.L. Stephens, Ib Chorkendorff Structure sensitivity of Cu electrodes in an alkaline environment?

#### 17:20 to 17:40

**Ruud Kortlever** (*Joint Center for Artificial Photosynthesis, California Institute of Technology, Pasadena, USA*), Hao Xie, John M. Eiler, Jonas C. Peters, Theodor Agapie

Isotope Effects on the Electrochemical Reduction of CO<sub>2</sub> on a Polycrystalline Copper Electrode

#### 17:40 to 18:00

Laura Gilson (Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, USA), Martin Bazant, Cullen Buie

Effects of Geometry on Cyclable Membraneless Flow Battery Design

# S08 Dealloying: Fundamentals, Application, and Control

# Room: 551A

Chaired by: Roger Newman and Jörg Weissmueller

### 14:00 to 14:40 Keynote

**Jörg Weissmueller** (IWW Inst für Werkstoffphysik und Werkstofftechnologie, Technische Universität Hamburg-Harburg, Hamburg, Germany)

Microstructure Evolution during and after Dealloying - Highlighting the Link to Materials Behavior

#### 14:40 to 15:00 Invited

**Tony Spassov** (Faculty of Chemistry and Pharmacy, Sofia University, Sofia, Bulgaria), Luben Mihaylov, Akihisa Inoue

Selective dissolution of metallic glasses and nanocrystalline alloys

#### 15:00 to 15:20 Invited

**Fouad Maroun** (*Laboratoire de Physique de la Matiere Condensee*, *CNRS*, *Ecole Polytechnique*, *Palaiseau*, *France*), Alexis Damian, Florian Lecadre, Philippe Allongue

In Situ STM Studies of Electrochemical Alloying/Dealloying of a Single Atomic Layer

#### 15:20 to 15:40 Invited

Frank Uwe Renner (Institute for Materials Research and IMEC, Hasselt University, Diepenbeek, Belgium), Patricia Losada-Pérez, Shova Neupane

Thiols and Crystallographic Cracking of Au Nanomaterials

#### 15:40 to 16:00 Invited

**Hoydoo You** (*Materials Science Division, Argonne National Laboratory, Argonne, USA*), Yihua Liu, Andrew Ulvestad, Wonsuk Cha, Michael Pierce, Vladimir Komanicky

Nanoscale Imaging and Dynamics of Dissolution and Dealloying using Coherent X-rays

#### 16:00 to 16:20

Mareike Haensch (Department of Chemistry, Carl von Ossietzky University of Oldenburg, Oldenburg, Germany), Julian Behnken, Luis Balboa, Gunther Wittstock

Surface oxides at nanoporous gold investigated by surface interrogation mode of scanning electrochemical microscopy

#### 16:20 to 16:40

16:40 to 17:00

**Innocent Achari** (*Chemistry, Binghamton University, SUNY, Binghamton, USA*), Jiaxin Xia, Stephen Ambrozik Development of Active Nanoporous Catalysts based on De-alloyed of Cu<sub>v</sub>Au(1,v) Alloys

17:00 to 17:20

**Matthias Graf** (*Materials Physics and Technology, Technische Universität Hamburg, Hamburg, Germany*), Mareike Haensch, Gunther Wittstock, Jörg Weissmüller

Dealloying Routes and the Role of Adsorbates on the Structure of Nanoporous Gold

17:20 to 17:40

**Shan Shi** (Hybrid Materials Systems, Materials Mechanics, Institute of Materials Research, Helmholtz-Zentrum Geesthacht, Geesthacht, Germany), Jürgen Markmann, Jörg Weissmüller

Uniform hierarchical nanoporous Pd by dealloying - synthesis and hydrogen driven actuation performance

# S11 Synthesis and Applications of Electrochemically Active Materials

#### Room: 553

Chaired by: Hayato Takada and Mireille Turmine

14:00 to 14:20

**Dorottya Hursán** (Department of Physical Chemistry and Materials Science, University of Szeged, Szeged, Hungary), Attila Kormányos, Róbert Ondok, Tamás Kiss, Csaba Janáky

Solar fuel generation using organic semiconducting polymer photoelectrodes

14:20 to 14:40

**Yi-June Huang** (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan)

Pencil-Urchin-Like CoSe<sub>2</sub> Catalytic Film as the Electrodes for Dye-Sensitized Solar Cell and Hydrogen Evolution Reaction

14:40 to 15:00

Wei-Ting Chen (Institute of Polymer Science and Engineering, National Taiwan University, Taipei, Taiwan)

Tube-Array of S-P3MEET/PEDOT-MeOH as Electro-catalytic Counter Electrode for Dye-Sensitized Solar Cells

15:00 to 15:20

**Hayato Takada** (*Industrial Chemistry, Tokyo University of Science, Tokyo, Japan*), Morio Nagata, Tuyoshi Ochiai Color changeable gold luster polymer apply for energy storage smart window

15:20 to 15:40

Fábio Simões (Institute of Marine Sciences, Federal University of São Paulo, Santos, Brazil), Luis Antonio Polaci, Vinícius Soares

Synthesis and Characterization of Modified Electrodes Based on Poly(o-ethoxyaniline) and Functionalized Carbon Nanotubes Composites

15:40 to 16:00

Yahya Ismail (Chemistry Division, Department of Basic Science, A'Sharqiyah University, Ibra, Oman)

Polymeric Sensing Electrochemical Motors. One Device with Two Tools Working Simultaneously: Mimicking Proprioception

16:00 to 16:20

Mireille Turmine (LISE UMR-CNRS 8235, UPMC - University Paris 6, Paris, France), Larbi Oularbi, Mamia El Rhazi

Electrochemical detection of trace heavy metals using bismuth particles/polypyrrole film/ionic liquid modified carbon paste electrode

16:20 to 16:40 Coffee Break

#### 16:40 to 17:00

**Minghui Cao** (*Electronic Materials Research Laboratory, Xi'an Jiaotong University, Xi'an, China*), Le Li Optimize the conductivity of PEDOT:PSS flexible transparent electrode with graphene

#### 17:00 to 17:20

**Danny Chhin** (NanoQAM, Department of Chemistry, University of Quebec at Montreal, Montreal, Canada)

Performance of capacity enhanced conducting polymer based cathodes for lithium ion battery

#### 17:20 to 17:40

**Andrea Auer** (*Physical Chemistry, University of Innsbruck, Innsbruck, Austria*), Engelbert Portenkirchner, Thomas Götsch, Carlos Valero-Vidal, Simon Penner, Julia Kunze-Liebhaeuser

Preferentially Oriented  ${
m TiO_2}$  Nanotubes as Anode Material for Li-Ion Batteries: Insight into Li-Ion Storage and Lithiation Kinetics

#### 17:40 to 18:00

**Lathe Jones** (*School of Science*, *RMIT University*, *Melbourne*, *Australia*), Baiyu Ren, Suresh Bhargava, Daniel Oppedisano, Miao Chen, Frank Antolasic, Ahmad Kandjani

Electrochemical and Physical Properties of Prussian Blue (PB) Composites: Stable Electrocatalytic Materials

# S11 Synthesis and Applications of Electrochemically Active Materials

### Room: 551B

Chaired by: Agustin Bolzan and Mariangela Longhi

#### 14:00 to 14:20 Invited

**Laurent Ruhlmann** (*Chemistry Department, Université de Strasbourg, Strasbourg, France*), Antoine Bonnefont, Zhaohui Hum, Moussa Boudiaf, Dejin Zang, Yanping Quian

Photoelectrochemical properties of original hybrid organic – inorganic porphyrin – polyoxometalate thin film: from flat to mesoporous ITO electrodes

#### 14:20 to 14:40

**Bing Yan** (*Chemistry, Massachusetts Institute of Technology, Cambridge, USA*), Yogesh Surendranath Oxygen Reduction Catalyst Ni<sub>3</sub>S<sub>2</sub> Oxidative Surface Restructuring and Application in Membrane-free Fuel Cells

#### 14:40 to 15:00

**Agustin Bolzan** (*Electrochemistry, Instituto Invest. Fisicoquimicas Teoricas y Aplicadas , La Plata, Argentina*), Leticia Azpeitia, Claudio Gervasi

Initial Stages of Sn Electrodeposition on Glassy Carbon. Effects of Temperature and Thiourea Addition

#### 15:00 to 15:20

**Zhen He** (Chemistry and Chemical Engineering, Central South University, Changsha, China), Shan Han, Rui Wang

One-Step Electrodeposition of Nanocrystalline Zn<sub>x</sub>Co<sub>3-x</sub>O<sub>4</sub> Films with High Activity and Stability for Electrocatalytic Oxygen Evolution

#### 15:20 to 15:40

**Wei-Nien Su** (Graduate Institute of Applied Science and Technology, National Taiwan University of Science and Technology, Taipei, Taiwan), Andebet Gedamu Tamirat, Amare Aregahegn Dubale, Hung-Ming Chen, Bing Joe Hwang

Achieving low turn-on voltage of hematite photoanode through sequential surface treatment for photoelectrochemical water splitting

#### 15:40 to 16:00

**Javier Recio** (*Inorganic Chemistry, Pontifical Catholic University of Chile, Chile*), Ricardo Venegas, Jose H. Zagal, Karina Muñoz, César Zúñga

Metal precursor influence in the catalytic activity of pyrolyzed non precious metal catalyst

#### 16:00 to 16:20 Invited

Elisabeth Lojou (Bioenergetic and Protein Engineering, Aix Marseille Univ - CNRS, Marseille, France), Ievgen Mazurenko, Karen Monsalve, Cristina Gutierrez-Sanchez, Pascale Infossi, Marie Thérèse Giudici-Orticoni, Nicolas Mano, Oliver Lenz

Enzymatic catalysis for H<sub>2</sub>/O<sub>2</sub> biofuel cells: from self-assembled-monolayers to mesoporous carbon materials

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00 Invited

**Sahr Khan** (*Chemistry, Massachusetts Institute of Technology, Cambridge, USA*), Yogesh Surendranath Poison-Tolerant Catalyst for Electrocatalytic Production of Formate from CO<sub>2</sub>

#### 17:00 to 17:20

Munetaka Oyama (Department of Material Chemistry, Kyoto University, Kyoto, Japan), Yuki Umeya, Toshiyuki Kawashimo

Modification of Gold Nanoparticles on Nickel Electrodes by a Galvanic Replacement Reaction

#### 17:20 to 17:40

Mariangela Longhi (Dipartimento di Chimica, Università degli Studi di Milano, Milano, Italy)

Catalyst aging. Effects on the morphology and electrocatalytical activity of nitrogen-doped carbon nanotubes

#### 17:40 to 18:00

**Qing Li** (School of Materials Science and Engineering, Huazhong University of Science and Technology, Wuhan, China), Tanyuan Wang

Cu Nanoparticle-Based Catalysts for Selective Electrochemical CO<sub>2</sub> Reduction

# S12 Electrochemical Technology for solving 21st Century Challenges

### Room: 555B

Chaired by: Gerardine G. Botte and Joaquin Rodriguez-Lopez

#### 14:00 to 14:20

Sergi Garcia-Segura (Institute of Physical and Theoretical Chemistry, Bonn Universität, Bonn, Germany), Ehab Mostafa, Helmut Baltruschat

Are N-volatile Species Released During Mineralization of Organic Pollutants by Hydroxyl Radical on Boron-Doped Diamond Anodes?

### 14:20 to 14:40

**Orlando Garcia Rodriguez** (*Civil and Environmental Engineering, National University of Singapore, Singapore, Singapore*), Chern Yi Toh, Olivier Lefebvre

Wastewater treatment using nano-structured activated carbon and its *in-situ* electrochemical regeneration in a novel reactor configuration

#### 14:40 to 15:00

Karine Groenen Serrano (Laboratoire de Génie Chimique, Université Paul Sabatier, Toulouse, France), Yandi Lan, Clemence Coetsier, Christel Causserand

Experimental study and modelling of electrochemical oxidation of pharmaceuticals using a boron-doped diamond anode

#### 15:00 to 15:20

**Carlos Alberto Martínez-Huitle** (*Institute of Chemistry, Federal University of Rio Grande do Norte, Natal, Brazil*), Alexsandro J. dos Santos, Amison R. Lopes da Silva, Djalma Ribeiro da Silva

Effect of water hardness during the BDD-anodic oxidation of wastewater containing with an azo dye

#### 15:20 to 15:40

**Hugo Olvera Vargas** (Civil and Environmental Engineering, National University of Singapore, Singapore, Singapore), Xiamei Zheng, Olivier Lefebvre

Electrochemical Peroxidation - Electro-Fenton Integrated Process for Sludge Treatment: a Real Case Study

#### 15:40 to 16:00

Manuel Andres Rodrigo (Chemical Engineering, Universidad de Castilla-la-Mancha, Ciudad Real, Spain), Martin Muñoz, Cristina Sáez, Pablo Cañizares

Remediation of soils polluted with organochlorinated compounds using surfactant-aided soil washing and electrochemical oxidation

#### 16:00 to 16:20

Roseline Esmilaire (Institut Européen des Membranes, Universite de Toulouse, CNRS, INPT, UPSUMR 5635 (CNRS-ENSCM-, Montpellier, France), Clemence Coetsier, Jean-Christophe Rouch, Stéphane Raffy, Marc Cretin, Christel Causserand, Clement Trellu

Anodic Oxidation of Organic Compounds Using TiO<sub>x</sub> Membrane as Porous Anode Material

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00

Ana S. Fajardo (Department of Chemical Engineering, University of Coimbra, Coimbra, Portugal), Helga F. Seca, Rui C. Martins, Vanessa N. Corceiro, Inês F. Freitas, João P. Vieira, Maria E. Quinta-Ferreira, Rosa M. Quinta-Ferreira

Comparison between the effect of Ti/RuO<sub>2</sub> and Ti/IrO<sub>2</sub> anodes on the purification of phenolic wastewaters

#### 17:00 to 17:20

**Mio Hayashi** (*Photocatalyst Group, Kanagawa Academy of Science and Technology, Kawasaki, Japan*), Tsuyoshi Ochiai, Shoko Tago, Hiromasa Tawarayama, Toshifumi Hosoya, Akira Fujishima

Influence of Dissolved Ions on the Water Purification Performance of TiO<sub>2</sub>-Impregnated Porous Silica Tubes

#### 17:20 to 17:40

**Abdoulaye Thiam** (*Programa Institucional de Fomento a la I+D+i, Universidad Tecnológica Metropolitana, Santiago, Chile*), Ricardo Salazar, Ignacio Sirés, Birame Boye, Enric Brillas

Degradation of carbofuran in aqueous solutions by electrochemical advanced oxidation processes: Study of parameters and by-products

#### 17:40 to 18:00

Xiaotang Xu (Urban Construction and Environmental Engineering, Chongqing University, Chongqing, China)

Synergetic Effects of Electrochemical Precipitation and Cathodic Oxidation on Removal of Ammonia in
Wastewater

# S13 The Green Potential of Molecular Electrochemistry

### Room: 556A

Chaired by: Ismael Diez-Pérez and Francesco Paolucci

### 14:00 to 14:40 Keynote - Jaroslav Heyrovsky Prize for Molecular Electrochemistry

Ismael Diez-Pérez (Physical Chemistry Department, Barcelona, Spain)

Probing Concepts in Single-Molecule Wires: Diodes, Electromechanics, FETs, Spinterface, Photo-switches and... Single-molecule Chemistry?

#### 14:40 to 15:00 Invited

**Kazuhiro Chiba** (Applied Biological Science, Tokyo University of Agriculture and Technology, Tokyo, Japan), Takao Shoji, Yohei Okada

Synthesis of Azanucleosides by Anodic Oxidation in a Lithium Perchlorate-Nitroalkane Electrolyte Solution

#### 15:00 to 15:20

Benjamin Schille (Institute of Chemistry, Rostock University, Rostock, Germany), Niels Ole Giltzau, Robert Francke

Novel Polyelectrolyte Mediators for Indirect Electroorganic Synthesis

#### 15:20 to 15:40 Invited

Patrizia Romana Mussini (Dipartimento di Chimica, Università degli Studi di Milano, Milano, Italy), Serena Arnaboldi, Tiziana Benincori, Silvia Cauteruccio, Emanuela Licandro, Mariangela Longhi, Rocco Martinazzo, Simona Rizzo, Francesco Sannicolo

"Inherently Chiral" Electrode Surfaces and Media: Alternative Approaches to Enantioselective Electrochemistry

#### 15:40 to 16:00

**Yuvraj Birdja** (Catalysis and Surface Chemistry, Leiden Institute of Chemistry, Leiden, Netherlands), Rafaël E. Vos, Olha Nahorna, Marc Koper

Optimizing Electrosynthesis of Formic Acid from Carbon Dioxide by Immobilized Indium-Protoporphyrins

#### 16:00 to 16:20

Chiu Lam (Chemistry and Biochemistry, University of California, Santa Barbara, Santa Barbara, USA), R. Daniel Little

Photoredox Catalyst Based on an Arylimidazole Oxidative Electrochemical Mediator

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:20 Keynote

Dennis Peters (Chemistry, Indiana University, Bloomington, USA)

Electrochemical Reduction of Atrazine at Carbon and Silver Cathodes

#### 17:20 to 17:40 Invited

Florence Geneste (Institut des Sciences Chimiques de Rennes, University of Rennes 1, Rennes, France), Wenyan He, Imen Saidi, Melika Zaghdoudi, Jean-Marie Fontmorin, Isabelle Soutrel, Didier Floner, Florence Fourcade, Abdeltif Amrane

Indirect Electroreduction on Catalyst-Modified Electrodes as Pretreatment to Enhance Biodegradability

#### 17:40 to 18:00

**Christoph Guetz** (Institute of Organic Chemistry, Johannes Gutenberg University Mainz, Mainz, Germany), Siegfried Waldvogel

Electrochemistry in Continuous Flow - Electroorganic Process Development on Lab and Industrial Scale

#### 18:00 to 18:20 Invited

**Timo Broese** (*Insitut of Chemistry, University of Rostock, Rostock, Germany*), Robert Francke Electrosynthesis Using a Recyclable Mediator-Electrolyte System Based on the I(I)/I(III) Redox Couple

# S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

# Room: 552B

Chaired by: Vito Di Noto and Juan M. Feliu

#### 14:00 to 14:20

Wen-Bin Cai (Department of Chemistry, Fudan University, Shanghai, China), Han Wang, Bei Jiang, Ting-Ting Zhao, Kun Jiang

*In Situ* Infrared Spectroscopic Study on Electrocatalysis of Ethylene Glycol Oxidation on Bare and Bi-Modified Pd Concave Nanocubes in Alkaline Solution

#### 14:20 to 14:40 Invited

Vito Di Noto (Dept. of Industrial Engineering, Chemistry for Technology, University of Padova, Padova, Italy)
Hierarchical "Core-Shell" Electrocatalysts for the Oxygen Reduction Reaction (ORR) based on Graphene
"Cores" and Metal Alloy Carbon Nitride "Shells"

#### 14:40 to 15:00

Adrian Fortuin (HySA/Catalysis, Catalysis Institute, Dept. Chemical Engineering, University of Cape Town, Cape Town, South Africa), Emanuela Carleschi, Bryan Doyle, Dave G. Billing, Rudolph Erasmus, Adam Shnier, Daniel Wamwangi, Cobus Kriek, Günther Scherer, Pieter Levecque

Model Electrocatalyst to Study the Anchoring of Pt on Carbon for PEFCs

# 15:00 to 15:20

**Zengwei Zhu** (College of Mechanical and Electrical Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China), Chunjian Shen

Morphological Structure of Cathode for Enhancing Electrodeposit Adhesion Strength

#### 15:20 to 15:40

**Ulrich Biedermann** (Interface Chemistry and Surface Engineering, Max-Planck-Institut fuer Eisenforschung GmbH, Duesseldorf, Germany), Simantini Nayak, Andreas Erbe

Electrochemical Oxygen Reduction on Zinc Oxide: A Combined DFT and ATR-IR Study of the Detailed Mechanism

#### 15:40 to 16:00

**Philippe Hapiot** (*Institut des Sciences Chimiques de Rennes*, *CNRS - Université de Rennes 1*, *Rennes*, *France*), Yara Aceta, Jin-Chao Dong, Jian-Feng Li, Yann R. Leroux, Corinne Lagrost

Production of Reactive Oxygen Species during ORR. SECM and Spectroscopic Investigations

#### 16:00 to 16:20

**Vladimir Tripkovic** (Energy Conversion and Storage, Technical University of Denmark, Lyngby, Denmark), Heine Anton Hansen, Juan Maria Garcia Lastra, Tejs Vegge

Understanding and Tailoring the Performance of Transition Metal Oxides for the Oxygen Evolution Reaction

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00

**Juan M. Feliu** (*Instituto de Electroquimica*, *Universidad de Alicante*, *Alicante*, *Spain*), Valentín Briega-Martos, Enrique Herrero

Effect of Selective Adatom Decoration at Steps of Pt Model Surfaces on the Oxygen Reduction Reaction

#### 17:00 to 17:20

**Megan Jackson** (*Chemistry, Massachusetts Institute of Technology, Cambridge, USA*), Seokjoon Oh, Sterling Chu, Corey Kaminsky, Jeffrey Miller, Yogesh Surendranath

Molecular control of interfacial inner-sphere electron transfer via graphite conjugation

#### 17:20 to 17:40

**Zenonas Jusys** (*Institute of Surface Chemistry and Catalysis, Ulm University, Ulm, Germany*), Linh Nguyen, Johannes Schnaidt, Rolf Juergen Behm

 $\rm O_2$  Reduction on Glassy Carbon and Au Electrodes in BMP-TFSI with Mg<sup>+</sup> Ions: DEMS and ATR-FTIRS Model Study in a Flow Cell

#### 17:40 to 18:00

**Xiaohui Yang** (Chemistry, University of Aberdeen, Aberdeen, United Kingdom), Angel Cuesta Computational Ag/AgCl reference electrode from density functional theory-based molecular dynamics

#### 18:00 to 18:20

Wen Wen (Life Sciences, SSRF, SINAP, CAS, Shanghai, China), Mei Gao, Yueliang Gu, Xingmin Zhang, Daming Zhu, Zheng Jiang, Xingyu Gao

*In Operando* Structure-property Studies of Bismuth Based Oxygen Ionic Conductors for Lithium Batteries Cathode Applications

# S17 Advances in Theory and Modeling of Electrochemical Systems

# Room: 552A

Chaired by: Arnulf Latz and Charles W. Monroe

#### 14:00 to 14:20

**Ulrike Krewer** (*Institute of Energy and Process Systems Engineering, TU Braunschweig, Braunschweig, Germany*), Fridolin Röder, Richard D. Braatz

Multi-Scale Simulation of Surface Film Growth Mechanisms in Lithium-Ion Batteries

#### 14:20 to 14:40

Vincent Laue (Institute of Energy and Process Systems Engineering, Technische Universität Braunschweig, Braunschweig, Germany), Oke Schmidt, Xiangzhong Xie, Fridolin Röder, René Schenkendorf, Ulrike Krewer Model-based Uncertainty Quantification for the Product Properties of Lithium-Ion Batteries

#### 14:40 to 15:00

Mariem Maiza (Matériaux, Transport et Stockage d'Energie, Laboratoire de Réactivité et Chimie des Solides, Amiens, France), Dinh An Nguyen, Nathalie Legrand, Philippe Desprez, Alejandro A. Franco

Beyond Newman's Model: Microstructurally-Resolved Simulations of the Dynamic Responses of Lithium Ion Batteries upon Cycling

#### 15:00 to 15:20

**Lalit M. Pant** (Energy Technologies Area, Lawrence Berkeley National laboratory, Berkeley, USA), Mike L. Perry, Adam Weber

Use of Modeling for Diagnostics of Polymer Electrolyte Fuel Cells

#### 15:20 to 15:40

**Thomas Kadyk** (Institute for Energy and Process Systems Engineering, Braunschweig University of Technology, Braunschweig, Germany), Ulrike Krewer

Flight Path Fuel Cell: Theory and Modeling Setting the Course for Future Aviation

#### 15:40 to 16:00

Annick Hubin (Materials and Chemistry, Vrije Universiteit Brussel, Brussel, Belgium), Dries Van Laethem, Lucia Fernandez Macia, Johan Deconinck

Modelling of the Electrochemical Impedance of Acceptor Doped Cerium Oxide

#### 16:00 to 16:20

**Juhyun Song** (Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA), Martin Bazant

Generalized Diffusion Impedance and its Inversion to Diagnose Microstructure of Electrodes

#### 16:20 to 16:40

Coffee Break

#### 16:40 to 17:00

**Martin Bazant** (Departments of Chemical Engineering and Mathematics, Massachusetts Institute of Technology, Cambridge, USA)

Control of Phase Separation by Electro-autocatalysis

#### 17:00 to 17:20

**Thomas Barrès** (Surface du Verre et Interfaces UMR 125, Saint-Gobain Recherche, Aubervilliers, France), Hervé Montigaud, Odile Stephan, Bernard Tribollet, Yann Cohin, Mickael Boinet

Characterization of the Nano-Porosity of Silicon Nitride Thin Layers: Impedance Modeling of Nanopores

#### 17:20 to 17:40

**Angela Molina** (*Department of Physical Chemistry, University of Murcia, Murcia, Spain*), Joaquín González, Eduardo Laborda, Jose Manuel Olmos, Jose Maria Gomez-Gil

Analytical Theoretical Treatment of Interfacial Charge-Transfer Mechanisms at Microinterfaces

#### 17:40 to 18:00

Mohammad Mirzadeh (Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA), Martin Bazant

Electrokinetic Fingering: A Problem in Vector Laplacian Growth

#### 18:00 to 18:20

**Alexander Oleinick** (*Departement de Chimie*, *CNRS-ENS-UPMC UMR 8640 PASTEUR*, *Paris*, *France*), Oleksii Sliusarenko, Irina Svir, Christian Amatore

Importance of Stochastic Limitations in Electrochemistry at Arrays of Nanoelectrodes Functionalized by Redox Self-Assembled Monolayers

#### 18:20 to 18:40

**Muammar El Khatib** (School of Engineering, Brown University, Providence, USA), Alireza Khorshidi, Andrew Peterson

Acceleration of Saddle-Point Searches Assisted by Machine Learning

Friday, 1 September 2017

ROOMS:	Ballroom A	ROOMS: Ballroom A Ballroom B Ballroom C Room 550 Room 553	Ballroom C	Room 550	Room 553	Room 554	Room 557	Room 551A	Room 551B	Room 551A Room 551B Room 552A Room 552B Room 555A Room 555B Room 556A Room 556B	Room 552B	Room 555A	Room 555B	Room 556A	Room 556B
SYMPOSIUM	Symposium 5	SYMPOSIUM   Symposium 5   Symposium 6		Symposium 3	Symposium 11	Symposium 6	Symposium 6	Symposium 8	Symposium 11	Symposium 3 Symposium 11 Symposium 6 Symposium 6 Symposium 8 Symposium 11 Symposium 17 Symposium 15 Symposium 5 Symposium 12 Symposium 13 Symposium 4	Symposium 15	Symposium 5	Symposium 12	Symposium 13	Symposium 4
08:15 - 09:15							Plenary Lect	Plenary Lecture: <u>Jose H. Zagal</u> (Ballroom A)	gal (Ballroom A)						
09:30 - 09:50	39:30 - 09:50 R. Kumar	J. Jasinski		J. Manríquez	T. Ouyang	Y. Yan	A. Zitolo	Y. Ding	T. R. Torralba	T. R. Torralba A. Tkalych M. Vorotyntsev	M. Vorotyntsev	U. Ulissi	V. Caldeira	lonovolc/W S	
09:50 - 10:10	S. Feihl	V. Celorrio		N. Isoaho	C. Xuan	W. Mustain	C. Durante	Kongkanand	K. Fu	G. Kastlunger A. Antipov	A. Antipov	M. Ante	E. Umukoro	S. Waldvoger	
10:10 - 10:30	E. J. Calvo	R. Schloegl		A. Jones	A. Loh	H. Erikson	A. K. Mechler	S. Brankovic	D. Kowalski	J. Le	J. Popovic	S. Maye	Y. Xue	C. Bondue	
10:30 - 10:45								Coffee Break							
10:50 - 11:10	10:50 - 11:10 Z. Brown	N. Farandos		I. Taylor	YX. Jiang	A. Tiwari	U. Ozkan	J. Chen	N. Swami	L. Briquet	J. Cheng	S. D. Talian		obidooV -	
11:10 - 11:30	R. Elango	G. Schiller		D. Nieciecka	D. Nieciecka   Hernández-V.	A. Serov	Holst-Olesen	Holst-Olesen   M. Vukmirovic	Z. Li	A. Göttle	A. Yerokhin	T. Tsujimura		JI. TOSIIIUA	
11:30 - 11:50	Y. Yu	C. Chen		G. Phadke	Seokjoon Oh	Seokjoon Oh Maya-Cornejo	M. Suha Yazici	H. Wang	M. Evers	C. Kirk	BW. Mao	E. Agar		R. Francke	
11:50 - 12:10	11:50 - 12:10 K. Kubota	C. Neofytidis		M. Sancy	N. Tian K. Tamm	K. Tammeveski		M. Altomare	M. Santos	X. D. Zhang	C. Yang	H. Onuma		T. Gieshoff	
12:10 - 12:30	12:10 - 12:30 V. Cadiou	BK. Kim		P. Glowala	KJ.Tan			P. Si	H. Dong	M. Javad		Q. Hao		HC. Xu	
12:35 - 12:45							)	Closing Ceremony	ý						

# **FRIDAY AM**

# Friday 1 September 2017 - Morning

# Plenary Lecture

# Room: Ballroom A

Chaired by: Plamen Atanassov

08:15 to 09:15

**Jose H. Zagal** (*Chemistry of Materials, University of Santiago de Chile, Santiago, Chile*) Reactivity Descriptors of MNx Catalysts for the Oxygen Reduction Reaction

# S03 Electrochemical Approaches to Clinical Diagnostics and Medical Devices

# Room: 550

Chaired by: Frederique Deiss and José Manuel Pingarrón

09:30 to 09:50

**Juan Manríquez** (Department of Science, Centro de Inv. y Des. Tecnológico en Electroquímica SC, Pedro Escobedo, Mexico), Jorge Alberto Banda-Alemán, Viridiana Sotomayor-Villezcas, Guadalupe Zaldivar-Lelo de Larrea, Erika Bustos, Selene Sepúlveda, León Sánchez-Fernández, Carlos Francisco Sosa-Ferreyra

Electrochemical detection of uric acid in human serum using glassy carbon electrodes modified by gold nanoparticles and poly(amidoamine) dendrimers and its application to the clinical diagnosis of hypertensive disorders of pregnancy

09:50 to 10:10

Noora Isoaho (Department of Electrical Engineering and Automation, Aalto University, School of Electrical Engineering, Espoo, Finland), Sami Sainio, Niklas Wester, Leena-Sisko Johansson, Jari Koskinen, Tomi Laurila

Pt-Grown Carbon Nanofibers for Enzymatic Detection of Glutamate

10:10 to 10:30

**Abby Jones** (*Chemistry*, *University of Connecticut*, *Storrs*, *USA*), Mohamed Sharafeldin, Min Shen, Conan Mercer, Donal Leech

Prostate Cancer Biomarker Detection Using a 16-Sensor Electrochemical Microfluidic Immunoarray

10:30 to 10:50

Coffee Break

10:50 to 11:10

**Isaac Taylor** (Chemistry & Chemical Biology, Indiana University - Purdue University Indianapolis, Indianapolis, USA), David Wilkins, Frederique Deiss

Voltammetric Ion-Selective Electrode for Potassium Ions

**Dorota Nieciecka** (Department of Chemistry, University of Warsaw, Warsaw, Poland), Krystyna Kijewska, Agata Krolikowska, Gary Blanchard, Pawel Krysinski

Interaction of nanoparticles with biomembranes

#### 11:30 to 11:50

**Gayatri Phadke** (*Department of Chemistry, University of Connecticut, Storrs, USA*), Jennifer Satterwhite-Warden, Dharamainder Choudhary, John Taylor, James Rusling

Assessing CD62L Protein as a Biomarker in Bladder Cancer Patients

#### 11:50 to 12:10

**Mamié Sancy** (Escuela de Construcción Civil, Pontificia Universidad Católica de Chile, Santiago, Chile), Carolina Guerra, Daniela Silva, Claudio Aguilar

Characterization of Ti-30Nb-13Ta-2Mn Alloy for biomaterials applications

#### 12:10 to 12:30

**Paulina Glowala** (Department of Chemistry, University of Warsaw, Warsaw, Poland), Krystyna Kijewska, Gary Blanchard, Maciej Mazur

PLGA microspheres modified with gold-198 radioisotope - polymer carriers of anticancer drug doxorubicin

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

# Room: Ballroom A

Chaired by: Zachary Brown and Mickdy Milien

#### 09:30 to 09:50

**Ravi Kumar** (*School of Engineering, Brown University, Providence, USA*), Jung Hwi Cho, Anton Tokranov, Xingcheng Xiao, Brian Sheldon

Mechanical Degradation and Optimization of Solid Electrolyte Interphases in Li-Ion Batteries

#### 09:50 to 10:10

**Sebastian Feihl** (*R&D*, *Zahner Scientific Instruments*, *Kronach*, *Germany*), Mark Sholin, Carl Albrecht Schiller, Steffen Fröba, Michael Multerer, Werner Strunz

Method to Increase the Speed of EIS Series Measurements on Battery Stacks During Cycling while Avoiding Dramatic Loss of Measurement Accuracy

#### 10:10 to 10:30

**Ernesto Julio Calvo** (*INQUIMAE*, *Universidad de Buenos Aires*, *Buenos Aires*, *Argentina*), Florencia Marchini, Valeria Romero, Victoria Flexer, Federico Williams

Study of a  ${\rm LiMn_2O_4/Polypyrrole}$  hybride battery-selective capacitor system for the extraction of lithium chloride from natural brine

#### 10:30 to 10:50

Coffee Break

#### 10:50 to 11:10

**Zachary Brown** (*Chemistry, University of Rhode Island, Kingston, USA*), Sunhyung Jurng, Brett Lucht Investigation of SEI Formation on Lithium Metal Anodes

**Rakesh Elango** (*Laboratoire de Réactivité et Chimie des Solides, Universite De Picardie Jules Verne, Amiens, France*), Arnaud Demortiere, Vincent De Andrade, Mathieu Morcrette, Vincent Seznec

Optimization of electrode pore size for 1mm thick binder-free electrodes fabricated by Spark Plasma Sintering (SPS)

#### 11:30 to 11:50

Yan Yu (Department of Materials Science and Engineering, University of Science and Technology of China, Hefei, China)

Advanced Sodium-ion Batteries Based on NASICON-type Materials

#### 11:50 to 12:10

**Kei Kubota** (Department of Applied Chemistry, Tokyo University of Science, Tokyo, Japan), Koichi Hashimoto, Shinichi Komaba

Designing Performance of O3-type Na<sub>x</sub>[Ni,Mn,Fe,Ti]O<sub>2</sub> for Practical Na-Ion Batteries

#### 12:10 to 12:30

**Vincent Cadiou** (*IMN*, *CNRS*, *Nantes*, *France*), Elise Deunf, Eric Quarez, Dominique Guyomard, Thibaut Gutel, Philippe Poizot

Development of New Anion-Inserting Organic Electrode Materials for Rechargeable Lithium Batteries

# S05 Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

# Room: 555A

Chaired by: Satu Kristiina Heiskanen and Bharathy Subramanian Parimalam

#### 09:30 to 09:50

**Ulderico Ulissi** (Karlsruhe Institute of Technology, Helmholtz Institute Ulm, Ulm, Germany), Alberto Varzi, Seitaro Ito, Aihara Yuichi, Passerini Stefano

Glass-type Li<sub>2</sub>S-P<sub>2</sub>S<sub>5</sub> based electrolytes for next generation lithium sulfur batteries using novel composite cathodes

#### 09:50 to 10:10

**Mirko Ante** (*Electrochemistry, Forschungsinstitut Edelmetalle* + *Metallchemie, Schwaebisch Gmuend, Germany*), Seniz Soergel, Renate Freudenberger, Andreas Bund

Electrocatalysts for Lithium-Sulfur Energy Storage Systems

#### 10:10 to 10:30

**Sunny Maye** (Laboratory of Physical and Analytical Electrochemistry, Ecole Polytechnique Federale de Lausanne, Sion, Switzerland), Pekka Peljo

Non-Aqueous Copper Battery for Heat-to-Power Conversion and Storage

#### 10:30 to 10:50

Coffee Break

#### 10:50 to 11:10

**Sara Drvaric Talian** (Department of Materials Chemistry, National Institute of Chemistry, Ljubljana, Slovenia), Alen Vizintin, Tina Paljk, Iztok Arcon, Giuliana Aquilanti, Robert Dominko

Li-S battery mechanism in sparingly soluble electrolytes

**Tomoyuki Tsujimura** (*AR-3*, *Samsung R&D Institute Japan*, *Minoh*, *Japan*), Heidy Visbal, Seitaro Ito, Taku Watanabe, Yuichi Aihara

Oxide Double-Coating Layers on the Surface of  $\text{LiNi}_{0.8}\text{Co}_{0.15}\text{Al}_{0.05}\text{O}_2$  Cathode Material of All-solid-state Lithium Ion Battery

#### 11:30 to 11:50

Ertan Agar (Department of Mechanical Engineering, University of Massachusetts Lowell, USA), Patrick Cappillino, Mahnaz Nourani, Haobo Huang, Rachael Howland

High-Stability Mushroom-Based Electrolytes for Non-Aqueous Redox Flow Batteries

#### 11:50 to 12:10

**Hiroo Onuma** (*Applied Chemistry, Tokyo University of Science, Tyoko, Japan*), Mouad Dahbi, Shotaro Muratsubaki, Kei Kubota, Satoshi Yasuno, Shinichi Komaba

Potassium Intercalation into Graphite: Electrochemical Properties and Phase Transition

#### 12:10 to 12:30

**Qingli Hao** (School of Chemical and Engineering, Nanjing University of Science and Technology, Nanjing, China), Xinyan Jiao

Synthesis of T Nb<sub>2</sub>O<sub>5</sub> /N, S-Codoped Graphene for Lithium-Ion Hybrid Supercapacitors

# S06 Fuel Cells and Electrolyzers

# Room: Ballroom B

Chaired by: Byung-Kook Kim and Guenter Schiller

#### 09:30 to 09:50

Jacek Jasinski (Conn Center for Renewable Energy Research, University of Louisville, Louisville, USA), Babajide Patrick Ajayi, K. Ramachandra Rao, Sudesh Kumari, Dominika Ziolkowska, Dmitri Zakharov, Madhu Menon, Eric Stach, Mahendra Sunkara

Fundamental Study of OER Electrocatalytic Activity of La<sub>1-x</sub>Ca<sub>x</sub>(TM)O<sub>3</sub> Prepared by Atmospheric Plasma Method

#### 09:50 to 10:10

**Veronica Celorrio** (School of Chemistry, University of Bristol, Bristol, United Kingdom), Denis Kramer, Ainara Aguadero, Andrea Russell, David Fermin

R<sub>2</sub>MnRuO<sub>7</sub> (R = Dy, Ho, and Er) Pyrochlore Oxides as Bifunctional Oxygen Electrocatalysts

#### 11:10 to 10:30

**Byung-Kook Kim** (*High-Temperature Energy Materials Research Center, Korea Institute of Science and Technology, Seoul, Korea*), Si-Won Kim, Sungjun Choi, Jongsup Hong, Hyoungchul Kim, Kyung Joong Yoon, Ji-Won Son, Jong-Ho Lee, Hae-Weon Lee

Enhanced Catalytic Conversion of CO<sub>2</sub> and Steam on High-Temperature Co-Electrolysis in Solid Oxide Cells

#### 10:30 to 10:50

Coffee Break

#### 10:50 to 11:10

Nick Farandos (Chemical Engineering, Imperial College London, London, United Kingdom), Geoff Kelsall 3D Printed Solid Oxide Electrolysers

**Guenter Schiller** (Institute of Engineering Thermodynamics, German Aerospace Center (DLR), Stuttgart, Germany), Remi Costa, Feng Han, Michael Hoerlein, Aziz Nechache, Robert Semerad

Study on Degradation of Solid Oxide Cells during Electrolysis and Co-Electrolysis Operation

#### 11:30 to 11:50

**Chusheng Chen** (Department of Materials Science and Engineering, University of Science and Technology, Hefei, China), Jie Lin

Tailoring the pore structure of cathodes for improving the steam electrolysis performance of solid oxide electrolysis cells

#### 11:50 to 12:10

Charalampos Neofytidis (FORTH/ICE-HT, Patras, Greece), Dimitrios Niakolas

Modified NiO/GDC cermets as possible cathode electrocatalysts for H<sub>2</sub>O electrolysis & H<sub>2</sub>O/CO<sub>2</sub> coelectrolysis processes in SOECs

# S06 Fuel Cells and Electrolyzers

# Room: 554

Chaired by: William Mustain and Yushan Yan

#### 09:30 to 09:50 Invited

**Yushan Yan** (*Chemical and Biomolecular Engineering, University of Delaware, Newark, USA*)

Hydroxide Exchange Membrane Fuel Cells and Electrolyzers: From Materials to Devices

#### 09:50 to 10:10

**William Mustain** (Department of Chemical & Biomolecular Engineering, University of Connecticut, Storrs, USA), Travis Omasta, Xiong Peng

Approaching 2W/cm2 AEMFCs through Electrode Engineering and Controlling the Cell Water Content and Balance

#### 10:10 to 10:30

**Heiki Erikson** (*Institute of Chemistry, University of Tartu, Tartu, Estonia*), Jonas Mart Linge, Ave Sarapuu, Maido Merisalu, Mihkel Rähn, Leonard Matisen, Väino Sammelselg, Kaido Tammeveski

Oxygen Reduction Reaction on Nitrogen-Doped Graphene Supported Ag Nanoparticles

#### 10:30 to 10:50

Coffee Break

#### 10:50 to 11:10

**Aarti Tiwari** (Department of Chemistry, Indian Institute of Technology Ropar, Rupnagar, India), Vikram Singh, Debaprasad Mandal, Tharamani Chikka Nagaiah

Mechanistic Insight into Alkaline Oxygen Reduction Reaction over Nitrogen bearing Carbon Spheres

**Alexey Serov** (*NA*, *Pajarito Powder*, *LLC*, *Albuquerque*, *USA*), Geoffrey McCool, Samuel McKinney, Henry Romero, Thomas Stephenson, Barr Halevi

Engineered Carbons Supports (ECSs) for Cathode Oxygen Reduction Reaction Electrocatalysts

#### 11:30 to 11:50

Jose Maya-Cornejo (Nanotecnology, Universidad Nacional Autónoma de México, Querétaro, Mexico), J. Ledesma-García, N. Arjona, L.G. Arriaga

Cu@Pd/C and Cu@Pt/C electrocatalysts used as anode for the electrooxidation of crude glycerol as waste from biodiesel in a nanofluidic fuel cell

#### 11:50 to 12:10

Kaido Tammeveski (Institute of Chemistry, University of Tartu, Tartu, Estonia), Sander Ratso, Ivar Kruusenberg, Maike Käärik, Mati Kook, Rando Saar, Petri Kanninen, Tanja Kallio, Jaan Leis

Transition Metal and Nitrogen Codoped Carbide-Derived Carbon Catalysts for Oxygen Reduction Reaction in Alkaline DMFC

# S06 Fuel Cells and Electrolyzers

# Room: 557

Chaired by: Umit Ozkan and Mehmet Suha Yazici

#### 09:30 to 09:50

Andrea Zitolo (SAMBA Beamline, Synchrotron SOLEIL, Saint-Aubin, France), Nastaran Ranjbar-Sahraie, Tzonka Mineva, Qingying Jia, Jingkun Li, Serban Stamatin, Petr Krtil, Vanessa Armel, Vincent Goellner, Moulay-Tahar Sougrati, Lorenzo Stievano, Sanjeev Mukerjee, Emiliano Fonda, Frederic Jaouen

An X-Ray Absorption Look into the Structure of Iron and Cobalt Based Electrocatalysts for PEM Fuel Cells

#### 09:50 to 10:10

Christian Durante (Chemical Sciences, University of Padova, Padova, Italy), Giorgia Daniel, Enrico Foltran, Giorgio Mattiacci, Gian Andrea Rizzi, Armando Gennaro

PGM Free Electrocatalyst based on Fe-N, Modified Mesoporous Carbon prepared from Biosources for ORR

#### 10:10 to 10:30

Anna K. Mechler (Heterogeneous Reactions, Max Planck Institute for Chemical Energy Conversion, Muelheim a.d. Ruhr, Germany), Nastaran Ranjbar-Sahraie, Moulay Tahar Sougrati, Andrea Zitolo, Jan Schwämmlein, Hubert A. Gasteiger, Deborah Jones, Frederic Jaouen

Stabilization of Iron-Based Electrocatalysts for the Oxygen Reduction Reaction by Ultra-Low Amounts of Platinum

#### 10:30 to 10:50

Coffee Break

#### 10:50 to 11:10

**Umit Ozkan** (*Chemical and Biomolecular Engineering, The Ohio State University, Columbus, USA*), Kuldeep Mamtani, Deeksha Jain, Anne Co

Insights into Oxygen Reduction Reaction (*ORR*) and Oxygen Evolution Reaction (OER) for Nitrogen-doped Carbon Nanostructures (CN<sub>x</sub>) in Acidic Electrolyte

**Kaspar Holst-Olesen** (*Chemistry, University of Copenhagen, Copenhagen, Denmark*), Alexander Bagger, Jan Rossmeisl, Matthias Arenz

On the Influence of Anion Adsorption on the Oxygen Reduction Activity of Non-Precious Metal Catalysts

#### 11:30 to 11:50

**Mehmet Suha Yazici** (*Energy Institute*, *Gebze*, *Turkey*), Mehmet Akif Azder, Omer Salihoglu Developing Porous Graphene Foam Catalyst for PEM Fuel Cell

# S08 Dealloying: Fundamentals, Application, and Control

# Room : 551A

Chaired by: Nikolay Dimitrov and Yi Ding

#### 09:30 to 09:50 Invited

**Yi Ding** (School of Materials Science and Engineering, Tianjin University of Technology, Tianjin, China) Nanoporous Metal Electrodes for Fuel Cell Technologies

#### 09:50 to 10:10 Invited

Anusorn Kongkanand (Fuel Cell Activities, General Motors, Pontiac, USA), Srikanth Arisetty, Shaun Alia, Jason Zack, Joseph M. Ziegelbauer, Nancy N. Kariuki, Venkata R. Yarlagadda, Deborah J. Myers, K.C. Neyerlin Dealloying of Binary Catalysts in Hydrogen Fuel Cell

#### 10:10 to 10:30 Invited

**Stanko Brankovic** (*ECE*, *University of Houston*, *Houston*, *USA*), Dongjun Wu, Dhaivat Solanki, Aniruddha Joi, Yezdi Dordi

Electroless Pb Monolayer Deposition - A Prelude for Highly Selective Electroless Atomic Layer Deposition Process

10:30 to 10:50 Coffee Break

#### 10:50 to 11:10 Invited

**Jingyi Chen** (*Chemistry and Biochemistry, University of Arkansas, Fayetteville, USA*)

Synthesis of Electrocatalytically Active Copper-Containing Multimetallic Nanostructures

#### 11:10 to 11:30 Invited

**Miomir Vukmirovic** (*Chemistry Department, Brookhaven National Laboratory, Upton, USA*), Jue Hu, Kurian Kuttiyiel, Guangyu Chen, Kotaro Sasaki, Radoslav Adzic

Re-evaluation of Au as a core for Pt monolayer oxygen reduction reaction catalyst

#### 11:30 to 11:50 Invited

**Hui Wang** (Department of Chemistry and Biochemistry, University of South Carolina, Columbia, USA)

Dealloying of Alloy Nanoparticles toward Optimization of Electrocatalysis

#### 11:50 to 12:10

Marco Altomare (Department of Materials Science and Engineering WW4-LKO, University of Erlangen-Nuremberg, Erlangen, Germany), Nhat Truong Nguyen, Patrik Schmuki

Templated Dewetting-Dealloying of Metals: Designing Photocatalytic Platforms

#### 12:10 to 12:30

**Pengchao Si** (School of Materials Science and Engineering, Shandong University, Jinan, China), Bing Luo, Fangyuan Diao

Fabrication of nanoporous nickel and its electrochemical application for hydrazine decomposition

# S11 Synthesis and Applications of Electrochemically Active Materials

# Room: 553

Chaired by: Seokjoon Oh and Adeline Loh

09:30 to 09:50

**Tian Ouyang** (Materials and Chemical Engineering Institute, Harbin Engineering University, Harbin, China), Kui Cheng, Dianxue Cao

Molten salt synthesis of nitrogen doped porous graphitic carbon: A new preparation methodology for high-volumetric capacitance electrodes materials

09:50 to 10:10

**Cuijuan Xuan** (School of Chemistry and Chemical Engineering, Huazhong University of Science and Technology, Wuhan, China), Mingxing Gong, Jie Wang, Huolin L. Xin

Binary Nickel and Iron based Porous Nanocubes as High-efficient Electrocatalysts for OER

10:10 to 10:30

**Adeline Loh** (*Renewable Energy, University of Exeter, Penryn, United Kingdom*), Xiaohong Li Nano-structuring Nickel-based Catalysts for Oxygen Evolution

10:30 to 10:50

Coffee Break

10:50 to 11:10

Yan-Xia Jiang (Department of Chemistry, Xiamen University, Fujian, China), Zong-Cheng Zhang, Chun-Hua Zhen, Shi-Gang Sun

Tuning surface composition of Pt<sub>3</sub>Co electrocatalysts and performance for enhancing CO tolerance

11:10 to 11:30

**Salvador Guadalupe Hernández-Vargas** (*Química Analítica, Universidad Nacional Autónoma de México, México, Mexico*), Julio César Aguilar-Cordero

Electrocatalytic Properties of Modified Carbon Paste Electrodes with Nanostructured Carbon Materials and Ionic Liquids

11:30 to 11:50

**Seokjoon Oh** (*Chemistry, Massachusetts Institute of Technology, Cambridge, USA*), Yogesh Surendranath Molecularly Tunable Graphite-Conjugated Catalysts

11:50 to 12:10

Na Tian (Chemistry Department, Xiamen University, Xiamen, China), Fengyang Zhang, Shi-Gang Sun Cu Modified Tetrahexahedral Pd Nanocrystals for Electroreduction of Carbon Dioxide to Ethanol

12:10 to 12:30

**Kai-Jher Tan** (Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA), Xiao Su, Johannes Elbert, T. Alan Hatton

Copper Hexacyanoferrate Hydrogel Electrodes for Cation Separations

# S11 Synthesis and Applications of Electrochemically Active Materials

# Room : 551B

Chaired by: Kaiyu Fu and Nathan Swami

#### 09:30 to 09:50 Invited

Tania Rodenas Torralba (Carbon Synthesis and Applications, Max Planck Institute for Chemical Energy Conversion, Muelheim an der Ruhr, Germany), Norbert Pfaender, Frank Girgsdies, Saskia Buller, Robert Schlögl Ultrathin Co-based Metal-Organic Framework Nanolamella on Graphitic Carbon as OER Electrocatalyst Precursors

#### 09:50 to 10:10

**Kaiyu Fu** (*Chemistry and Biochemistry, University of Notre Dame, Notre Dame, USA*), Paul Bohn Nanochannel Arrays for Molecular Sieving and Electrochemical Analysis by Nanosphere Lithography Templated Graphoepitaxy of Block Copolymers

#### 10:10 to 10:30 Invited

Damian Kowalski (Department of Engineering, Hokkaido University, Sapporo, Japan)

1D core-shell nanostructures formed by electrodeposition of metals and metalloids in anodic TiO<sub>2</sub> nanotubes

#### 10:30 to 10:50

Coffee Break

#### 10:50 to 11:10 Invited

**Nathan Swami** (*Electrical & Computer Engineering, University of Virginia, Charlottesville, USA*), Bankim Sanghavi, Ali Rohani, Renny Fernandez

Patterned graphene gold nanocomposites for electrochemical detection of microfluidic enriched biomarkers

#### 11:10 to 11:30

**Zhiyang Li** (Chemical Engineering Department, University of Massachusetts Lowell, USA), Fan Gao, Zhiyong Gu

An Enhanced Electrochemical Biosensor Based on 3D Pt Nanowire Array/Au Nanoparticle Hybrid Structure

#### 11:30 to 11:50

Mathies Evers (Faculty of Chemistry and Biochemistry, Ruhr-University Bochum, Bochum, Germany), Beatriz Roldan Cuenya, Kristina Tschulik

Constructive Impact Experiments of Single HAuCl<sub>4</sub> Micelles

#### 11:50 to 12:10

Mauro Santos (Centro de Ciências Naturais e Humanas, Universidade Federal do ABC, Santo André, Brazil)

Ceria Nanorods Supported on Vulcan XC72 Carbon as Electrocatalyst for Oxygen Reaction Reduction in Alkaline Medium

#### 12:10 to 12:30

**Hongxu Dong** (*Chemical Engineering, University of Virginia, Charlottesville, USA*), Gary Koenig Composition Control for Multicomponent Electroactive Materials

# S12 Electrochemical Technology for solving 21st Century Challenges

# Room: 555B

Chaired by: Karel Bouzek and Manuel Andres Rodrigo

09:30 to 09:50

Vincent Caldeira (Electrochemistry, CNRS / LEPMI / Universite Grenoble Alpes, Grenoble, France), Julien Thiel, Francois Lacoste, Marian Chatenet, Laetitia Dubau

Improving Negative Electrodes in Secondary Alkaline Zn/Ni Batteries

09:50 to 10:10

**Eseoghene Umukoro** (Department of Applied Chemistry, University of Johannesburg, Johannesburg, South Africa)
Fabrication of an Expanded Graphite Supported p-n MoS<sub>2</sub>-SnO<sub>2</sub> Heterojunction Composite Photo-Electrode for Enhanced Photo-Electrocatalytic Degradation of Pharmaceutical Pollutants

10:10 to 10:30

Yun Xue (College of Nuclear Science and Technology, Harbin Engineering University, Harbin, China)

Electrochemical Extraction of Rare Earth Elements by Codeposition and Cathodic Alloying with Zn in LiCl-

10:30 to 10:50

Coffee Break

KCl Melts

# S13 The Green Potential of Molecular Electrochemistry

# Room : 556A

Chaired by: Marilia Goulart and Carlos Frontana

09:30 to 10:10 Keynote

**Siegfried Waldvogel** (*Institute of Organic Chemistry, Johannes Gutenberg University Mainz, Mainz, Germany*)

Control of Selectivity in the Electrochemical Synthesis of Biaryls by a Solvent Effect

10:10 to 10:30

**Christoph Bondue** (*Leiden Institute of Chemistry, Universiteit Leiden, Leiden, Netherlands*), Marta Costa Figueiredo, Marc Koper

Electrochemical Acetone Reduction – A Model Reaction for the Electrochemical Refinery of Biological Feedstock

10:30 to 10:50

Coffee Break

10:50 to 11:30 Keynote

**Jun-ichi Yoshida** (Department of Synthetic Chemistry and Biological Chemistry, Kyoto University, Kyoto, Japan)
Recent Advances in Electrochemical C-H Functionalization

11:30 to 11:50 Invited

**Robert Francke** (*Institute of Chemistry, Rostock University, Rostock, Germany*), Alonso Rosas-Hernández, Henrik Junge, Matthias Beller, Michael Roemelt

Electrocatalytic Reduction of Carbon Dioxide Using Cyclopentadienone Iron Complexes - New Mechanistic Insights

#### 11:50 to 12:10

**Tile Gieshoff** (*Institute of Organic Chemistry, Johannes Gutenberg University, Mainz, Germany*), Anton Kehl, Kevin Moeller, Siegfried Waldvogel

Amidyl Radicals as Intermediates for the Electrochemical Synthesis of Heterocycles

#### 12:10 to 12:30

Hai-Chao Xu (Chemistry, Xiamen University, Xiamen, China)

Electrochemical Dehydrogenative Cyclization Reactions

# S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

# Room: 552B

Chaired by: Aleksey Yerokhin and Serge G. Lemay

#### 09:30 to 09:50 Invited

Mikhail Vorotyntsev (Electroactive Materials and Electrochemical Energetics, Dmitry Mendeleev University of Chemical Technology of Russia, Moscow, Russia), Anatoly Antipov, Dmitry Konev, Alexander Modestov

Bromate reduction at rotating disk electrode *via* autocatalytic redox-cycle mechanism: predictions *vs* experimental data

#### 09:50 to 10:10

**Anatoly Antipov** (Electroactive Materials and Electrochemical Energetics, Dmitry Mendeleev University of Chemical Technology of Russia, Moscow, Russia), Dmitry Konev, Mikhail Vorotyntsev

Bromate reduction at rotating disk electrode via autocatalytic redox-cycle mechanism

#### 10:10 to 10:30

**Jelena Popovic** (*Physical Chemistry of Solids, Max Planck Institute for Solid State Research, Stuttgart, Germany*), Maryam Nojabaee, Hsui-Wei Cheng, Markus Valtiner, Joachim Maier

Surface force versus carrier concentration measurements of glyme lithium electrolytes

#### 10:30 to 10:50

Coffee Break

#### 10:50 to 11:10

**Jun Cheng** (*College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China*) Interplay between electrons and protons at electrochemical interfaces

#### 11:10 to 11:30

**Aleksey Yerokhin** (School of Materials, University of Manchester, Manchester, United Kingdom), Veta Mukaeva, Evgeny Parfenov, Allan Matthews

On the Mechanisms Underlying Electrolytic Plasma Processes with Vapour Gaseous Envelope

#### 11:30 to 11:50

**Bing-Wei Mao** (*Chemistry Department, Xiamen University, Xiamen, China*), Mian-Gang Li, Li Chen, Wei Lu, Jing Peng, Shuai Liu, Jia-Wei Yan, Corinne Lagrost, Philippe Hapiot

Chromocene Redox Reaction at Ag(111)-Ionic Liquid Interfaces

#### 11:50 to 12:10

Chunzhen Yang (Chimie du Solide et de l'Energie, Collège de France, Paris, France), Jean-Marie Tarascon, Alexis Grimaud

Chemical recognition of deprotonated states on the surface of oxygen evolution reaction electrocatalysts

# S17 Advances in Theory and Modeling of Electrochemical Systems

#### Room: 552A

Chaired by: Angel Cuesta and Jan Rossmeisl

#### 09:30 to 09:50 Invited

**Alexander Tkalych** (Department of Chemistry, Princeton University, Princeton, USA), Kuang Yu, Houlong Zhuang, Emily Carter

Structural, Electronic, and Chemical Properties of B-NiOOH from First Principles

#### 09:50 to 10:10

Georg Kastlunger (School of Engineering, Brown University, Providence, USA), Per Lindgren, Muammar El Khatib, Andrew Peterson

Towards a first-principles simulation of constant-potential reactions in electrochemistry

#### 10:10 to 10:30

**Jiabo Le** (Department of Chemistry, University of Aberdeen, Aberdeen, United Kingdom), Marcella Iannuzzi, Angel Cuesta, Jun Cheng

Modelling metal electrolyte interfaces from density functional theory based molecular dynamics

#### 10:30 to 10:50

Coffee Break

#### 10:50 to 11:10

**Ludovic Briquet** (Johnson Matthey Technology Centre, Sonning Common, United Kingdom), Misbah Sarwar, Jane Mugo, Glenn Jones, Federico Calle-Vallejo

How Accurate are OER Activity Predictions from DFT?

#### 11:10 to 11:30 Invited

Adrien Göttle (Catalysis and Surface Chemistry, Leiden University, Leiden, Netherlands), Yuvraj Birdja, Marc Koper

Understanding Selectivities during CO<sub>2</sub> Reduction on Metalloporphyrin Catalysts

#### 11:30 to 11:50 Invited

**Charlotte Kirk** (*Photon Science*, *SLAC National Accelerator Laboratory, Menlo Park, USA*), Karen Chan *Ab initio* modelling of the electrochemical interface: applications to CO<sub>2</sub> reduction

#### 11:50 to 12:10

**Xueqing Dennis Zhang** (Solar Fuel, Dutch Institute For Fundamental Energy Research, Eindhoven, Netherlands)
Computational Design of Efficient Photoelectrode for Water Oxidation

#### 12:10 to 12:30

Mohammad Javad Eslamibidgoli (Department of Chemistry, Simon Fraser University, Burnaby, Canada), Michael Eikerling, Axel Groß

First-Principles Studies of the Structural Properties of Nickel (Oxy)hydroxide as Oxygen Evolution Reaction Electrocatalysts



# S01 New Experimental Trends in Analytical Electrochemistry

# **Advanced techniques**

S01-001

Jason Bonezzi (Chemistry, The University of Akron, Akron, USA), Aliaksei Boika

Electrokinetic Preconcentration and Electrochemical Detection of Silver Nanoparticles

S01-002

Sonivette Colón-Rodríguez (Chemistry, University at Albany- SUNY, Albany, USA), Gerd-Uwe Flechsig

Accurate Automatic Temperature Calibration of Directly Heated Electrodes

S01-003

**Johnsi Mathivanan** (Department of Chemistry, University at Albany, SUNY, Albany, USA), Zhihua Chang, Sarasi Galagedera, Gerd-Uwe Flechsig

Consecutive Reaction Kinetics of Paracetamol – Studied at Directly Heated Electrodes

S01-004

Seonhwa Park (Department of Chemistry, Pusan National University, Busan, Korea), Gamwoo Kim, Jeongwook Seo, Haesik Yang

Ultrasensitive Washing Free Protease Sensors Using Selective Affinity Binding, Selective Proteolytic Reaction, and Proximity-Dependent Electrochemical Reaction

S01-005

**Jeonghwa Shin** (Department of Chemistry, Pusan National University, Busan, Korea), Seonhwa Park, Jeongwook Seo, Haesik Yang

A Highly Sensitive and Simply Operated Botulinum Toxin Sensor Toward Point-of-Care Testing

S01-006

**Jingjing Zhang** (School Chemistry and Chemical Engieering, Nanjing University, Nanjing, China)

Electrochemical Visualization of Intracellular Hydrogen Peroxide at Single Cells

S01-007

Wei Zhao (Department of Chemistry, Nanjing University, Nanjing, China), Yin-Zhu Wang, Jing-Juan Xu, Hong-Yuan Chen

Bipolar Electrode based Multi-Color Electrochemiluminescence

S01-008

Junyu Zhou (School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China)

Electrochemiluminescence Imaging for Parallel Single-Cell Analysis of Active Membrane Cholesterol

#### Advances in instrumentation

S01-009

Christian Candia (Departamento de Química de Los Materiales, Universidad de Santiago de Chile, Santiago, Chile), Ricardo Salazar, Natalia Hassan

Modification of Electrodes with Nanostructured Materials for the Detection of Hydroquinone

S01-010

**Pablo Fanjul Bolado** (*R&D Department*, *DropSens*, *S.L.*, *Llanera*, *Spain*), Carla Navarro Hernández, David Hernández Santos

Boron doped diamond screen printed electrodes: morphological and electrochemical characterization

S01-011

**Jifu Liang** (*Electrical Engineering and Computer Science*, *Case Western Reserve University*, *Cleveland*, *USA*), David Ariando, Yingying Wang, Jonathan Strobl, Daniel Scherson, Kenneth Loparo, Soumyajit Mandal

A Wireless, Portable, and Inexpensive Open-Source Potentiostat

S01-012

Ricardo Salazar (Chemistry of Materials, University of Santiago of Chile, Santiago, Chile)

Voltammetric determination of anti-hypertensive drug hydrochlorothiazide using screen-printed carbon electrodes modified with L- glutamic acid

# **Analytical electrochemistry**

S01-013

**Kuniaki Murase** (*Department of Materials Science and Engineering, Kyoto University, Kyoto, Japan*), Tianyu Chen, Atsushi Kitada, Kazuhiro Fukami, Dilshadbek T. Usmanov, Lee Chuin Chen, Kenzo Hiraoka

Identification of Copper(II)-Lactate Complexes in Alkaline Aqueous Solutions for Cu<sub>2</sub>O Electrodeposition

# Coupled-electrochemical techniques

S01-014

Chi-Han Lu (Bio-Industrial Mechatronics Engineering, National Taiwan University, Taipei, Taiwan), Lin-Chi Chen, Sheng-Feng Huang

Differential-Pulse Voltammetric Electrolyte Fingerprinting Using Chemically Modified Electrode Arrays

# Improved data analysis methodologies

S01-015

Cheng-Hui Chen (Mechanical Engineering, National Cheng Kung University, Tainan City, Taiwan), Chia-Chern Chen

Thermodynamic Analysis on the Formation of Anodic Aluminum Oxide Using Averaged Moving Approximate Entropy

S01-016

Eric Gil (Lafam, Faculty of Pharmacy, Federal University of Goias, Goiânia, Brazil), Isaac Yves Lopes de Macêdo, Ricardo Menegatti, Karla Carneiro de Siqueira Leite, Murilo Ferreira de Carvalho, Flávio Silva de Carvalho, Luciano Morais Lião, Freddy Fernandes Guimarães

Spectro and electroanalytical determination of antioxidant power of "BHT like" derivatives

S01-017

**Daikichi Mukoyama** (*Research Organization for Nano & Life Innovation, Waseda University, Shinjuku, Japan*), Hiroki Nara, Tokihiko Yokoshima, Toshiyuki Momma, Tetsuya Osaka

EIS Analysis of Commercial Lithium-ion Battery for Long-term Charge-discharge Cycling under Various Temperature Conditions

S01-018

**En Ning Saw** (Analytical Chemistry, Micro-/Nano-Electrochemistry, Ruhr Universität Bochum, Bochum, Germany), Kristina Tschulik

Time-Resolved Nano-Impact Electrochemistry as a Sensitive Tool to Determine Diffusion Coefficients of Halides

# S02 Flow and Microfluidic Systems in Analytical Electrochemistry

#### Advances in instrumentation

S02-001

**Seok Hee Han** (*Chemistry, Seoul National University, Seoul, Korea*), Seung-Ryong Kwon, Seol Baek, Taek Dong Chung Microfluidic Ionic Circuits Powered by RED (*Reverse Electrodialysis*) as a Full Iontronic System

# Coupled detection and separation

S02-002

**Nalin Andersen** (Nanoscience and Microsystems Engineering, University of New Mexico, Albuquerque, USA), Kateryna Artyushkova, Ivana Matanovic, Plamen Atanassov

Spectro-electrochemical Platform for in Situ Dynamic Chemical Analysis of Catalytic Cascade Systems

#### Flow detectors

S02-003

**Dmytro Bavol** (Department of Analytical Chemistry, Charles University in Prague, Prague, Czech Republic), Anastasios Economou, Hana Dejmkova, Jiri Zima, Jiri Barek

Simultaneous Determination of Synthetic Antioxidants by Flow-Injection Analysis with Multiple-Pulse Amperometric Detection

S02-004

Mateusz Gocyla (Department of Electrode Process, Institute of Physical Chemistry Polish Academy of Sciences, Warsaw, Poland), Marcin Holdynski, Marcin Opallo

Electrochemical detection of graphene oxide in flow

S02-005

Wallans dos Santos (Farmácia, Universidade Federal dos Vales do Jequitinhonha e Mucuri, Diamantina, Brazil), Morgana Alecrim, Fernando Oliveira, Tiago Guedes, Eric Gil, Rodrigo Verly

Electrochemical Behavior of the Cotinine at a Boron-Doped Diamond Electrode and its Determination in Saliva by Multiple-pulse Amperometry in an FIA System

S02-006

**Wallans dos Santos** (*Farmácia, Universidade Federal dos Vales do Jequitinhonha e Mucuri, Diamantina, Brazil*), Amanda Lima, Fernando Oliveira, Tiago Guedes, Rodrigo Munoz

Determination of Oxcarbazepine in Pharmaceutical Formulations and Urine by Pulsed Amperometry in FIA System using Boron-Doped Diamond Electrode

# Microsystems

S02-007

**Raquel Oliveira** (*UTCBS*, *Ecole Nationale Superieure de Chimie de Paris*, *Paris*, *France*), Catherine Sella, Laurent Thouin, Amal Zerrad-Saadi, Thierry Fournier, Sophie Griveau, Fethi Bedioui

Evaluation of the redox status of the human placenta using electrochemical microdevices

# Miniaturized devices and techniques

S02-008

**Aaron Marshall** (Department of Chemical and Process Engineering, University of Canterbury, Christchurch, New Zealand), Tobias Baldhoff, Volker Nock

Aluminium Micromachining via Mass-Transfer Limited, Electrochemical Dissolution in Phosphoric Acid

S02-009

Dusty Miller (Chemistry, Vanderbilt University, Nashville, USA), David Cliffel

Organotypic Culture Models for Predictive Toxicology

S02-010

**Guirong Zhang** (Department of Chemistry, Technical University of Darmstadt, Darmstadt, Germany), Liuliu Shen, Bastian J.M. Etzold

Modifier-Free Microfluidic Electrochemical Sensor for Heavy Metal Detection

# S03 Electrochemical Approaches to Clinical Diagnostics and Medical Devices

#### Cancer

S03-001

Rupali Gupta (Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi, India)

Palladium Nanoparticles Immobilized Mesoporous Silica Spheres: An Electrochemical Sensor for Real Time Detection of Cancerous Cells via Hydrogen Peroxide sensing

S03-002

Ewa Nazaruk (Chemistry Department, University of Warsaw, Warsaw, Poland), Agnieszka Majkowska-Pilip, Renata Bilewicz

Lipidic Cubic Phase Nanoparticles - Cubosomes for Improved Efficiency of Drug Delivery to Cancer Cells

S03-003

**Manuela Rueda Rueda** (*Physical Chemistry, University of Seville, Seville, Spain*), Francisco Prieto, María Luisa González Rodríguez, Antonio M. Rabasco, Nabila Naitjho, Marcos Vázquez

Phospholipid Surface Films for Doxorubicin Delivery: A Combined Electrochemical, Thermodynamic and Pharmaceutical Study

# Cell signaling

S03-004

**Aicheng Chen** (Department of Chemistry, Lakehead University, Thunder Bay, Canada), Zhonggang Liu, Maduraiveeran Govindhan, Heidi Forsyth, Neelam Khaper

Electrochemical Detection of Nitric Oxide Release from Normal and Stressed cells

S03-005

**Shoko Tago** (*Photocatalyst group, Kanagawa Academy of Science and Technology, Kawasaki, Japan*), Tsuyoshi Ochiai, Seitaro Suzuki, Mio Hayashi, Akira Fujishima

Flexible Boron-Doped Diamond (BDD) Electrodes for Plant Monitoring

# **Disease diagnostics**

S03-006

A.C. Anithaa (Bioelectronics and Biosensors, Alagappa University, Karaikudi, India), K. Asokan, C. Sekar Non-enzymatic Acetylcholine Sensor Based on the Low Energy Nitrogen Ion Beam Irradiation on Tungsten Trioxide Thin Films

#### **Medical devices**

S03-007

**Kosuke Ino** (*Graduate School of Engineering, Tohoku University, Sendai, Japan*), Mayuko Terauchi, Atsushi Suda, Ryota Kunikata, Tomokazu Matsue, Hitoshi Shiku

Hydrogel fabrication based on electrodeposition using electrochemical devices

S03-008

**Suk-Joon Kim** (*Chemistry, Sogang University, Seoul, Korea*), Enhua Zhu, Sangseob Lee, Woonsup Shin Continuous Extraction of Interstitial Fluid for Diagnostic Applications by Electroosmotic Pump

S03-009

**Judith Faye Rubinson** (*Department of Chemistry, Georgetown University, Washington, USA*), Y. Kayinamura, A. Kammerich, H. Mandal, H, Charkhkar, D. McHail, J. Kastee, T. Dumas, N. Peixoto, J. Pancrazio

Superior Conducting Polymer Materials for Passive and Active Measurements of Neural Activity

S03-010

**Yi-Min Wu** (*Bio-Industrial Mechatronics Engineering, Taipei, Taiwan*), Chih-Hao Chen, Ching-Jung Yen, Lin-Chi Chen

Solid-contact Ion-selective Electrode Array with Anti-fouling Property for Multiplex Ion Sensing in Protein-rich Samples

#### Molecular biomarkers

S03-011

Rui Barbosa (Center for Neuroscience and Cell Biology, Faculty of Pharmacy, University of Coimbra, Coimbra, Portugal), Catia Lourenco, Greg Gerhardt, Joao Laranjinha, Ana Ledo

Monitoring Neurometabolic Markers in Vivo with Electrochemical Microsensor Arrays

#### Oxidative stress

S03-012

**Eduard Dumitrescu** (Department of Chemistry & Biomolecular Science, Clarkson University, Potsdam, USA), Xiaobo Liu, Kenneth Wallace, Silvana Andreescu

Electrochemical Detection of Nitric Oxide in Zebrafish Embryos

#### Protein biomarkers

S03-013

**Sadagopan Krishnan** (*Chemistry, Oklahoma State University, Stillwater, USA*), Vini Singh, Jinesh Niroula, Gayan Premaratne

Electrochemical Diabetes Immunosensors: Looking at Non-glucose Markers

S03-014

**José Manuel Pingarrón** (Analytical Chemistry, University Complutense of Madrid, Madrid, Spain), Esther Sánchez-Tirado, Araceli González-Cortés, Paloma Yáñez-Sedeño

Single and Multiplexed Detection of Cytokines in Urine, Saliva and Serum using Disposable Electrochemical Immunosensors

S03-015

**Laurent Thouin** (*Chemistry Department, Ecole Normale Superieure, Paris, France*), Wided Bellagha-Chenchah, Catherine Sella, Christian Amatore, Elisa Peroni, Anna Maria Papini

Electrochemical Detection of Autoantibodies of Multiple Sclerosis in a Microfluidic Device

# S04 Bioelectrochemistry without Borders

#### **Biofuel**

S04-001

**Sidney Aquino Neto** (Department of Chemistry, University of Sao Paulo, Ribeirao Preto, Brazil), Shelley Minteer, Adalgisa De Andrade

Bioelectrocatalytic Ethanol Oxidation through the Immobilization of Dehydrogenase Enzymes in Cascade on a C8-LPEI Matrix

S04-002

**Shuji Ishii** (*Graduate School of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Japan*), Hiroto Funabashi, Seiya Tsujimura

Bilirubin oxidase-catalyzed oxygen reduction cathode using MgO-templated carbons

S04-003

**Sophie Lecomte** (*CBMN*, *CNRS-Universite de Bordeaux*, *Pessac*, *France*), Alexandre Ciaccafava, Cristina Gutierrez-Sanchez, Elisabeth Lojou

Structure and Orientation of Enzymes used in Fuel Cell Probe by Polarized Modulated – Infra Red Reflexion Absorption Spectroscopy and Electrochemistry

S04-004

**Yukiya Morigayama** (Department of Pure and Applied Chemistry, Faculty of Science, Tokyo University of Science, Noda, Japan), Tatsuo Aikawa, Yoshinao Hoshi, Isao Shitanda, Masayuki Itagaki

Preparation of Biofuel Cell Anode coated by Poly-(ethylene glycol) Diacrylate Gel

S04-005

**Isao Shitanda** (Department of Pure and Applied Chemistry, Tokyo University of Science, Noda-shi, Japan), Misaki Momiyama, Seiya Tsujimura, Yoshinao Hoshi, Masayuki Itagaki

Paper-based Biofuel Cell Array Loading Fuel- and Buffer Salt-containing Paper Sheet

S04-006

**Shodai Sunami** (*Department of Mechanophysics, Kyoto Institute of Technology, Kyoto, Japan*), Kosuke Nishida Improvement of Enzyme Immobilization and Porous Structure for Bioanode of Lactate Biofuel Cell

S04-007

**Nozomi Terai** (Department of Pure and Applied Chemistry, Faculty of Science, Tokyo University of Science, Noda, Japan), Yusuke Asano, Isao Shitanda, Yoshinao Hoshi, Masayuki Itagaki

Fabrication of Enzyme-immobilized Janus Micromotor based on Amino group-functionalized Polystyrene Particles

S04-008

**Seiya Tsujimura** (Faculty of Pure and Applied Sciences, Univesity of Tsukuba, Tsukuba, Japan), Kazunori Sugihara, Tsubasa Adachi, Kazuki Murata

Stabilization of redox enzymes by kosmotropic anions with ammonium ion for applications to bioelectrochemical devices

#### **Biomolecule**

S04-009

Ming Wang (Institute of Chemistry, Chinese Academy of Sciences, Chinese Academy of Sciences, Beijing, China), Fei Wu, Langun Mao

Role of Organic Solvents in Immobilizing Fungus Laccase on Single-Walled Carbon Nanotubes for Improved Current Response in Direct Bioelectrocatalysis

#### **Biosensor**

S04-010

Sarasi Galagedera (Chemistry, University at Albany - SUNY, Albany, USA), Gerd-Uwe Flechsig

Effect of Heavy Water on the Interactions of Hexammine Ruthenium(III) and Hexammine Cobalt(III) with Self-Assembled Monolayers of DNA

S04-012

**Kaylyn Leung** (*Chemistry*, *University of British Columbia*, *Vancouver*, *Canada*), Hua-Zhong Yu, Dan Bizzotto Evidence of Alteration to DNA Monolayers via Ruthenium Hexaammine Measurements

S04-013

**Fred Lisdat** (*Biosystems Technology, Institute of Appl. Life Science, Technical University Wildau, Wildau, Germany*), Artur Fandrich, Erik Wischerhoff, André Laschewsky, Burkhard Schulz

Thermally responsive polymer films on electrodes – verification of the switching process and influence of peptide coupling

S04-014

Carlo Santoro (Chemical and Biological Engineering, University of New Mexico, Albuquerque, USA), Cristina Flores-Cadengo, Francesca Soavi, Mounika Kodali, Alexey Serov, Irene Merino-Jimenez, Ioannis Ieropoulos, Plamen Atanassov

Liter-volume Supercapacitive Microbial Fuel Cell

#### Cells

S04-015

**Ren Hu** (*Department of Chemistry, Xiamen University, Xiamen, China*), Ren Hu, Jacques Nsabimana, Dongping Zhan, Bin Ren, Christian Amatore, Zhong-Qun Tian

Liquid/Liquid Interfacial Electrode for Programmable Stimulation of Single Living PC12 Cells

#### Electron transfer

S04-016

**Marcela Méndez-Tovar** (*Química*, *Universidad Autónoma Metropolitana Iztapalapa*, *CDMX*, *Mexico*), J. Viridiana García-Meza, Ignacio González

EIS monitoring of Acidithiobacillus thiooxidans biofilm formation on graphite surface

# Nanobiotechnology

S04-017

**Mounika Kodali** (*Chemical and Biological Engineering, University of New Mexico, Albuquerque, USA*), Carlo Santoro, Santiago Rojas-Carbonell, Alexey Serov, Kateryna Artyushkova, Plamen Atanassov

PGM-free catalysts for improved performances in microbial fuel cell

S04-018

**Albert Perry** III (Department of Chemical and Biological Engineering, University of New Mexico, Albuquerque, USA), Madelaine Seow Chavez, Sadia Kabir, Ivana Matanovic, Alexey Serov, Kateryna Artyushkova, Plamen Atanassov

Integrating Inorganic Catalysts into Biotic Synthetic Catalytic Cascades

#### **Nucleic acid**

S04-019

**Alexandra Verhaven** (*Chimie Analytique et Chimie des Interfaces*, *Université Libre de Bruxelles*, *Bruxelles*, *Belgium*), Dan Bizzotto, Thomas Doneux

Investigation of DNA Single Nucleotide Polymorphism by Electrochemical In Situ Fluorescence Microscopy

# S05 Novel Materials and Devices for Energy Storage:

Batteries for Tomorrow's World

# Capacitive/pseudocapacitive electrodes

S05-001

**Shanyi Guang** (College of Chemical Engineering and Biology Technology, Donghua University, Shanghai, China), Mebrahtu Melake Mezgebe, Fayin Zhang

A Novel 3D Graphene-Fe<sub>3</sub>O<sub>4</sub>-Polyaniline Nano-Composite for Supercapacitor Electrodes

# ILs for energy storage and conversion

S05-002

**Chih-Yao Chen** (*Department of Applied Chemistry, Osaka University, Osaka, Japan*), Yuya Uemura, Yu Hashimoto, Tetsuya Tsuda, Susumu Kuwabata

Potential Cathode Materials for Rechargeable Al Batteries

#### Li-ion

S05-003

**Woosuk Cho** (Advanced Batteries Research Center, Korea Electronics Technology Institute, Seongnam, Korea), Sun-Mi Lee, Ko-Woon Lee, Yong Nam Jo, Jun-Ho Song, Min-Sik Park, Ji-Sang Yu

Mn surface doping for improved thermal properties of Ni-rich layered  ${\rm LiNi_{0.82}Co_{0.12}Mn_{0.06}O_2}$  cathode for lithium ion battery

S05-004

**Zhijia Du** (Energy and Transportation Science Division, Oak Ridge National Laboratory, Oak Ridge, USA), Jianlin Li, Marrisa Wood, Claus Daniel, David Wood

Carbon nanotubes as conductive additives in aqueous processing of NMC532 electrode

**Sebastian Feihl** (*R&D*, *Zahner Scientific Instruments*, *Kronach*, *Germany*), Mark Sholin, Carl Albrecht Schiller, Steffen Fröba, Michael Multerer, Werner Strunz

A Novel Multi-Sine Excitation Procedure for Impedance Spectroscopy Supports Automatic Drift Correction and Online Error Determination

#### S05-006

**Claudio Gerbaldi** (*Department of Applied Science and Technology - DISAT, Politecnico di Torino, Torino, Italy*), Luca Porcarelli, Alexander S. Shaplov, M. Ali Aboudzadeh, Federico Bella, Jijeesh R. Nair, David Mecerreyes

New Families of Single-Ion Block Copolymer Electrolytes based on Poly(*Ethylene Oxide*) and Methacrylic Sulfonamide for Lithium Batteries

#### S05-007

**Thomas Guarr** (*Chemistry, Michigan State University Bioeconomy Institute, Holland, USA*), Nicholas Mortimer, Amber Prins, Adina Dumitrascu, Daniel Henton

Tuning Redox Potentials via Steric Crowding: Design of Stable Redox Shuttles to Prevent Overcharging in Lithium Ion Batteries

#### S05-008

Ling Huang (College of Chemistry and Chemical Engineering,, Xiamen University, Xiamen, China)

New insights into the structure changes and interface properties of  $\mathrm{Li_3VO_4}$  anode during the initial cycle by insitu XRD and EIS

#### S05-009

Carlos Juarez-Yescas (Departamento de Química, Universidad Autónoma Metropolitana Iztapalapa, Ciudad de México, Mexico), Gregorio Guzmán, Guadalupe Ramos-Sánchez, Noé Aguilar-Eseiza, Daniel Ramirez-Rosales, Ignacio González

Analysis of the Synergic Effects in LiFePO<sub>4</sub>/Li<sub>2</sub>CuO<sub>2</sub> Cathode Blends for Li Ion Batteries via Electrochemical and EPR Experiments

#### S05-010

**Hun-Gi Jung** (Center for Energy Convergence Research, Korea Institute of Science and Technology (KIST), Seoul, Korea), Min-Gi Jeong, Du Hoang Long

Self-rearrangement of silicon embedded micro carbon sphere as anode materials for high-energy and long-life lithium-ion batteries

#### S05-011

**Kaushik Kalaga** (*Chemical Sciences and Engineering, Argonne National Laboratory, Lemont, USA*), Cameron Peebles, James A. Gilbert, Daniel Abraham

High Voltage Performance of Lithium Ion Cells with EC-Based and EC-Free Electrolytes

#### S05-012

**Kwok-ho Lam** (Electrical Engineering, The Hong Kong Polytechnic University, Hong Kong, China), Lina Qu, Xianhua Hou

Superior Electrochemical Performance in Flake NiFe<sub>2</sub>O<sub>4</sub> Anode Materials for Lithium-ion Batteries

#### S05-013

Mickdy Milien (Chemistry, University of Rhode Island, Kingston, USA), Jennifer Hoffmann, Jing Li, Martin Payne, Scott Stephenson, John Sans, Brett Lucht

The Effects of Electrolyte Additives on Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub> and How They Impact Gassing

#### S05-014

**Jelena Popovic** (*Physical Chemistry of Solids, Max Planck Institute for Solid State Research, Stuttgart, Germany*), George Hasegawa, Igor Moudrakovski, Joachim Maier

Infiltrated porous oxide monoliths as high lithium transference number electrolytes

#### S05-015

Frank Uwe Renner (Institute for Materials Research and IMEC, Hasselt University, Diepenbeek, Belgium), Boaz Moeremans, Yueming Zheng

Combining Complementary Techniques to Control and Understand the SEI Formation on Silicon Alloys

**Daichi Sakuma** (*Materials Science and Technology, Nagaoka University of Technology, Nagaoka, Japan*), Shuichi Taniguchi, Koutaro Konakawa, Satoshi Otsuka, Minoru Umeda

Entropy Evaluation of Commercial 18650 Type Lithium Ion Cell

S05-017

Morimasa Takata (Mechanical Engineering, Nagaoka University of Technology, Nagaoka, Japan), Minoru Umeda, Nobuhiko Azuma

Evaluation of cell performance at -5 to -80°C: NiMH and Li-ion cells

S05-018

Wan-Ting Tsou (Department of Materials Science and Engineering, National Tsing Hua University, Taipei, Taiwan)
Enhanced Electrochemical Properties of Nb-TiO<sub>2</sub>/Sulfur Dual Layered Structure Applied to Lithium-Sulfur Batteries

S05-019

**Jing Zhao** (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Yue Pan, Guiling Wang

One-step Preparation of Carbon and Fe<sub>3</sub>O<sub>4</sub> Nanospheres Coated Fe<sub>3</sub>O<sub>4</sub> for Lithium Ion Batteries

#### Metal-Sulfur

S05-020

Irina Belenkaya (*Chemistry, Tel-Aviv University, Tel-Aviv, Israel*), Inna Schektman, Tzach Mukra, Meital Goor, Emanuel Peled, Diana Golodnitsky

New Approaches to the Design of Cathodes and Barriers for Enhanced Performance of Li/S Batteries

S05-021

**Hiroki Nara** (*Research Organization for Nano & Life Innovation, Waseda University, Tokyo, Japan*), Takeru Hara, Tokihiko Yokoshima, Toshiyuki Momma, Tetsuya Osaka

Synthesis of Manganese Dioxides as Redox Mediator and Support for Sulfur Cathode in Lithium Secondary Battery

#### Na-ion

S05-022

**Kyung Yoon Chung** (Center for Energy Convergence Research, Korea Institute of Science and Technology, Seoul, Korea), Dieky Susanto

Degradation mechanism of NaFeO<sub>2</sub> as cathode materials for Na-ion batteries at high voltage region

S05-023

**Kyung Yoon Chung** (*Center for Energy Convergence Research, Korea Institute of Science and Technology (KIST*), Seoul, Korea), Dieky Susanto

Utilization strategy of iron based layered oxides as cathode materials for Sodium ion batteries

S05-024

**Kei Kubota** (Department of Applied Chemistry, Tokyo University of Science, Tokyo, Japan), Yuya Hironaka, Koji Nitta, Atsushi Fukunaga, Shinichi Komaba

P2-Type Na<sub>x</sub>(Li,Ni,Mn,Fe)O<sub>2</sub> for Advanced Na-Ion Batteries

S05-025

**Laureline Lecarme** (*LITEN*, *CEA*, *Grenoble*, *France*), Virginie Simone, Loic Simonin, Sebastien Martinet Electrolyte in Na-ion batteries systems: towards an improvement of safety and lifetime

S05-026

**Giuseppina Meligrana** (*Department of Applied Science and Technology, Politecnico di Torino, Torino, Italy*), Francesca Colò, Federico Bella, Jijeesh R. Nair, Claudio Gerbaldi

Cheap and Easily Processable Polymer Electrolytes for Sodium Batteries

S05-027

Oliver Schneider (Institute for Informatics VI, Technical University of Munich, Garching, Germany), Lukas Seidl, Nicolas Bucher, Eileen Chu, Steffen Hartung, Sladjana Martens, Ulrich Stimming

Intercalation of Solvated Na-Ions into Graphite

Masahiro Shimizu (Materials Chemistry, Shinshu University, Nagano, Japan), Yuji Tsushima, Susumu Arai Electrochemical Na-insertion/extraction property of Ni-coated phosphorus prepared by an electroless deposition method

S05-029

Cristina Tealdi (Department of Chemistry, University of Pavia, Pavia, Italy), Chiara Ferrara, Piercarlo Mustarelli Structural and Transport Properties of Na0.44MnO2 Cathode Material for Rechargeable Na-ion Batteries

# Post Li-ion technologies

S05-030

**Hyungho Go** (*Department of Chemical Engineering, Inha University, Incheon, Korea*), Youngho Oh, Danbi Lee, Gibaek Lee, Yongsug Tak

Electrochemical Investigation of Modified Aluminum Anode Surface for Rechargeable Aluminum-ion Battery

S05-031

**Hyung Sun Kim** (Small & Medium Enterprise Support Center, Korea Institute of Science and Technology, Seoul, Korea)

Carbon composite bipolar plate for redox flow battery

S05-032

Aliya Mukanova (School of Engineering, National Laboratory Astana, Nazarbayev University, Astana, Kazakhstan), Almagul Mentbayeva, Arailym Nurpeissova, Arshat Urazbayev, Zhumabay Bakenov

N-type Amorphous Silicon Thin Film on 3D Current Collector as Negative Electrode for Li-ion Batteries

S05-033

**Joe Murphy** (*Chemical Engineering, Case Western Reserve University, Cleveland, USA*), Nicholas Sinclair, Robert Savinell, Jesse Wainright

Evaluation of Carbon Felt for High Potential Redox Couples

S05-034

**Kyle Smith** (*Mechanical Science and Engineering, University of Illinois at Urbana-Champaign, Urbana, USA*), Vinay Iyer, Pavan Nemani, Elena Montoto, Shaoyi Qian, Gavvalapalli Nagarjuna, Yu Cao, Jonathon Schuh, Randy Ewoldt, Jeffrey Moore, Joaquin Lopez-Rodriguez

Characterization of Electrolyte Transport Properties and Techno-Economic Analysis of Redox-Active Polymer Flow Batteries

S05-035

Carlos Valero-Vidal (Advanced Light Source, Lawrence Berkeley National Laboratory, Berkeley, USA), Yi Yu, Artem Baskin, Nathan T. Hahn, Kevin Zavadil, Bryan W. Eichhorn, David Prendergast, Ethan J. Crumlin

Characterization of the Electrode/Electrolyte Interface in the Next Generation of Batteries using Ambient Pressure XPS

S05-036

**Norbert Wagner** (*German Aerospace Center (DLR*), Institute for Engineering Thermodynamics, Stuttgart, Germany), Dennis Wittmaier, Natalia Andrea Canas, Indro Biswas, Alexander Kube, Kaspar Andreas Friedrich

Highly Stable Carbon-Free Cathodes for Li-Air Batteries with Aqueous Alkaline Electrolyte: Electrochemical and Structural Investigations

# Solid electrolytes

S05-037

**Hae-Won Cheong** (4th R&D Institute - 4, Agency for Defense Development, Daejeon, Korea), Chae-Nam Im, Ji-Youn Kim, Seung Ho Kang, Jang-Hyeon Cho

Molten Lithium-Sulfur Cell with Solid Electrolyte

S05-038

**Kai Guo** (*School of Engineering, Brown University, Providence, USA*), Mok Yun Jin, Teng Ma, Prabhakar A. Tamirisa, Xianghui Xiao, Huajian Gao, Brian Sheldon

Electrochemically Driven Deformation and Fracture in Solid State Batteries

**Seung Ho Kang** (*The 4th R&D Institute-4*, *Agency for Defence Development*, *Daejeon*, *Korea*), Hae-Won Cheong, Dang-Hyok Yoon, Junsin Yi

Molten Salt Infiltrated Ceramic Felt Separators for Li/FeS, Thermal Batteries

#### S05-040

Can Berk Uzundal (Chemistry, Bilkent University, Ankara, Turkey), Fadime Mert Balci, Burak Ulgut, Omer Dag Lyotropic Liquid Crystalline Mesophases of Sulfuric Acid-Non-Ionic Surfactant Stabilizes Lead (II) Oxide in Sulfuric Acid Concentrations Relevant to Lead Acid Batteries

#### S05-041

**Jun Zhang** (Chemical Engineering and Pharmaceutics School, Henan University of Science and Technology, Luoyang, China), Yiming Zhu, Yang Wang, Yonghua Duan

Preliminary Study on Electrochemical Reduction of Ammonium Metaborate to Indirectly Generate Ammonia Borane

# S06 Fuel Cells and Electrolyzers

# **Electrocatalysis**

#### S06-001

**Jinuk Byun** (School of Chemical and Biological Engineering, Seoul National University, Seoul, Korea), Sang Hyun Ahn, Jae Jeong Kim

Self-terminating electrodeposition of atomic scale platinum film on titanium nitride as an electrochemical catalyst

#### S06-002

Marian Chatenet (*LEPMI*, *Grenoble Institute of Technology* (*Grenoble-INP*), Saint Martin d'Heres, France), Clemence Lafforgue, Laetitia Dubau, Frederic Maillard

Influence of the nature of the alkaline electrolyte on the durability of platinum-based carbon-supported electrocatalysts for direct liquid alkaline fuel cells

#### S06-003

**Carlota Dominguez** (*School of Chemistry, Trinity College Dublin, Dublin, Ireland*), Md. Khairul Hoque, Michelle P. Browne, Leticia Esteban-Tejeda, Corbin K. Livingston, Kevin M. Metz, Paula E. Colavita

Flow synthesis of methanol-tolerant Pt nanoparticles within carbon microspheres as durable oxygen reduction reaction electrocatalysts

#### S06-004

**Daniel Escalera López** (School of Chemical Engineering, University of Birmingham, Birmingham, United Kingdom), Neil V. Rees

Inherent electrochemical activity and stability of amorphous  $MoS_x$  films for the hydrogen evolution in the 0.6-13 pH range

#### S06-005

**Jorge Ferreira de Araújo** (*Chemistry, Technical University Berlin, Berlin, Germany*), Mikaela Görlin, Thomas Merzdorf, Fabio Dionigi, Peter Strasser

In-situ corrosion of Nickel-based catalysts during OER studied via DEMS

#### S06-006

**Kang Fu** (College of Materials Science and Engineering, Donghua University, Shanghai, China), Yang Wang, Linchang Mao, Junhong Jin, Shenglin Yang, Guang Li

Facile Morphology Controllable Synthesis of PtPd Dendritic Nanorods on Graphene-Multiwalled Carbon Nanotube Hybrid Support as Efficient Electrocatalyst for Oxygen Reduction Reaction

#### S06-007

**Jaromir Hnat** (Department of Inorganic Chemistry, University of Chemistry and Technology Prague, Prague, Czech Republic), Christian Immanuel Muller, Martin Durovic, Thomas Rauscher, Lars Rontzsch, Monika Drakselová, Martin Paidar, Karel Bouzek

FeCoSiB Alloy as an Efficient Electrocatalyst for Hydrogen Evolution Reaction in Alkaline Environment

#### S06-008

**Kenta Kakitani** (*School of Engineering, The University of Tokyo, Tokyo, Japan*), Tetsuya Kimata, Tetsuya Yamaki, Shunya Yamamoto, Wei Mao, Takayuki Terai, Iwao Shimoyama, Daiju Matsumura, Tomitsugu Taguchi, Akihiro Iwase, Tomohiro Kobayashi

Activity Enhancement of Platinum Nanoparticle Catalysts by Ion-Beam-Induced Defects

#### S06-009

**Yeongdae Lee** (School of Energy and Chemical Engineering, Ulsan National Institute of Science and Technology, Ulsan, Korea)

Size dependency of electrocatalyst-support interaction of Pt supported by two-dimensional  ${\rm Ti_3C_2}$  in oxygen electrocatalysis

#### S06-010

**Chuqing Liu** (*Chemical Engineering, Univeristy of Massachusetts Lowell, USA*), Zhiyang Li, Ethan Adams, Zhiyong Gu

High Performance and High CO Tolerance Nanowire Arrays as Electrocatalysts for Direct Alcohol Fuel Cells

#### S06-011

**Jianguo Liu** (College of Engineering and Applied Sciences, Nanjing University, Nanjing, China), Congping Wu, Zhigang Zou

The promotion on the durability of carbon supported PtNi alloy catalyst by carbon coating and Au addition for oxygen reduction reaction

#### S06-012

Mariangela Longhi (Dipartimento di Chimica, Università degli Studi di Milano, Milano, Italy)

ORR Activity of Mesoporous N-Modified Carbon Doped with Non-Noble Metals. Effects of metal and nitrogen precursors

#### S06-013

**Linchang Mao** (College of Materials Science and Engineering, Donghua University, Shanghai, China), Yang Wang, Kang Fu, Junhong Jin, Shenglin Yang, Guang Li

PtFe Alloy Catalyst Supported on Porous Carbon Nanofiber with High Activity and Durability for Oxygen Reduction Reaction

#### S06-014

Sanjeev Mukerjee (Chemistry and Chemical Biology, Northeastern University, Boston, USA), Shraboni Ghoshal, Jingkun Li, Wentao Liang, Chunchuan Xu, Kerrie Gath, Jun Yang, James Waldecker, Guangnan Meng, Haiying Che, Shiming Zhang, Zi-Feng Ma, Qingying Jia

Metal and Metal Oxide Interactions and Their Catalytic Consequences

#### S06-015

**Kazuya Ogura** (*Graduate School of Environmental Materials Science*, *Hokkaido University*, *Sapporo*, *Japan*), Shoichi Tokuda, Masaru Kato, Ichizo Yagi

Electrocatalytic Oxygen Reduction Activity and Durability of Pt-Ni Alloy Nanostructures Supported on Nitrogen-Doped Carbon

#### S06-016

**Aaron Roy** (Chemical and Biological Engineering, University of New Mexico, Albuquerque, USA), Ivana Matanovic, Kateryna Artyushkova, Alexey Serov, Plamen Atanassov

Refractory Metal Doped  ${
m TiO}_2$  as Corrosion-Resistant Electrocatalyst Supports for Proton Exchange Membrane Fuel Cells

#### S06-017

Mauro Santos (Centro de Ciências Naturais e Humanas, Universidade Federal do ABC, Santo André, Brazil) Niobium and Palladium as Electrocatalysts for Ethanol Electrooxidation Reaction

#### S06-018

**Congying Song** (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Guiling Wang

In-situ reduced petal-shaped Co/Co<sub>3</sub>O<sub>4</sub> supported on Ni foam: a new catalyst for H<sub>2</sub>O<sub>2</sub> electroreduction

S06-019

**Matheus Souza** (*Physical Chemistry, Institute of Chemistry - UNICAMP, Campinas, Brazil*), Matheus Guide, Cléo Pires, Pablo Fernández

The electrooxidation of glycerol on polycrystalline gold modified by Cu

S06-020

**Naoto Todoroki** (*Graduate School of Environmental Studies, Tohoku University, Sendai, Japan*), Hirofumi Watanabe, Soma Kaneko, Masatsugu Hosoda, Yohe Bando, Toshimasa Wadayama

Oxygen Reduction Reaction Activity for Vacuum-Deposited Pt-Monolayers on Metal Single Crystal Substrates

S06-021

**Qunjie Xu** (College of Environmental and Chemical Engineering, Shanghai University of Electric Power, Shanghai, China)

Composite Films of Two-dimensional Black Phosphorus Nanoflakes and Graphene Supported Pd Nanoparticles for Ethanol Electrooxidation Enhancement

S06-022

Hui-Juan Yang (Chemistry Department, Xiamen University, Xiamen, China), Yu-Hao Hong, Zhi-You Zhou, Shi-Gang Sun

High Selectivity Reduction of CO2 to CO on Fe/N/C Catalyst with Excellent Tolerance to Metal Impurities

S06-023

**Ting-Hsuan You** (*Chemical Engineering, National Tsing Hua University, Hsinchu, Taiwan*), Chi-Chang Hu Engineering Binary Ru-Sn Oxides as Bi-functional Catalysts for the Air Electrode of Rechargeable Zinc-Air Batteries

# Electrolyser

S06-024

**Kensaku Nagasawa** (*Green Hydrogen Research Center, Yokohama National University, Yokohama, Japan*), Yuki Sawaguchi, Naoto Morita, Akihiro Kato, Yoshinori Nishiki, Shigenori Mitsushima

Development of Toluene Direct Hydrogenation Electrolyzer for Energy Carrier Technology

#### **Fuel Cells**

S06-025

**Gyeong Sook Bang** (School Electrical Engineering, Graphene/2D Materials Research, KAIST, Daejeon, Korea)

Defect-engineered N-doped graphene for efficient oxygen reduction

S06-026

Canyan Che (Science and Technology, Linköping University, Linköping University, Sweden)

High performance conducting polymer electrodes for hydroquinone benzoquinone redox

S06-027

**Hyeonji Choi** (Department of Chemical Engineering, Inha University, Incheon, Korea)

Durability of Nb-doped TiO<sub>2</sub> Catalyst Support of Polymer Electrolyte Membrane Fuel Cell

S06-028

Fabio Dionigi (Institut fuer Chemie, Technische Universitaet Berlin, Berlin, Germany), Carl Cesar Weber, Stefanie Kühl, Peter Strasser

Improving the Durability of Shape-controlled Octahedral Pt Alloy Nanoparticle Catalysts for Use in Fuel Cell Cathodes

S06-029

**Su Jeong Heo** (Department of Materials Science and Engineering, University of Connecticut, Storrs, USA), Boxun Hu, Abdelkader Hilmi, Chao-Yi Yuh, Prabhakar Singh

Solubility and Coarsening of LiAlO2 in MCFC Matrix

S06-030

**Jietao Jiang** (Materials and Chemical Engineering Institute, Harbin Engineering University, Harbin, China), Kui Cheng, Dianxue Cao

Pd nanoparticles support on rGO-C@TiC coaxial nanowires as a novel 3D electrode for NaBH<sub>4</sub> electrooxidation

#### S06-031

**Jakub Malis** (Department of Inorganic Technology, University of Chemistry and Technology Prague, Prague, Czech Republic), Martin Paidar, Karel Bouzek

Design of modular filter for treatment of air used as an oxidant in the mobile APU based on PEM fuel cell

#### S06-032

**Eugene Smotkin** (Department of Chemistry and Chemical Biology, Northeastern Universithy, Boston, USA)

Operando IR and Raman micro-spectroscopy of fuel cells

#### S06-033

**Jian Wang** (Materials and Chemical Engineering Institute, Harbin Engineering University, Harbin, China), Kui Cheng, Dianxue Cao

Facile synthesis of morphology-controlled Co<sub>3</sub>O<sub>4</sub> nanostructures and its application for H<sub>2</sub>O<sub>2</sub> electroreduction

#### S06-034

**Jun Yano** (Fundamental Science, National Institute of Technology, Niihama College, Niihama, Japan), Kenta Suzuki, Chikara Tsutsumi, Michiaki Mabuchi, Nobuki Hayase

Photogalvanic Cell Consisted of Photo-activated Flavin Mediated Oxidation of NADH and Reduction of Hydronium Ion

#### S06-035

**Andrea Zitolo** (SAMBA beamline, Synchrotron SOLEIL, Saint Aubin, France), Gautier Landrot, Guillaume Alizon, Emiliano Fonda

Synchrotron Radiation Based X-Ray Absorption for Electrochemistry:New Opportunities at the SAMBA Beamline

# Oxide- and proton-conducting electrolytes

#### S06-036

**Huazhen Cao** (College of Materials Science and Engineering, Zhejiang University of Technology, Hangzhou, China), Kailu Huang, Liankui Wu, Guangya Hou, Yiping Tang, Guoqu Zheng

Electrochemical studies of methanol electro-oxidation on Pt/RuO<sub>2</sub>/TNTs nanocomposite thin film electrodes

# PEFC (PEMFC & AEMFC)

#### S06-037

**Hikaru Igarashi** (*Green Hydrogen Research Center, Yokohama National University, Yokohama, Japan*), Akimitsu Ishihara, Takaaki Nagai, Satoshi Tominaka, Yoshiyuki Kuroda, Koichi Matsuzawa, Teko Napporn, Shigenori Mitsushima, Ken-ichiro Ota

Development of Conductive Oxides as Support of Precious-Metal- and Carbon-Free Oxide-based Cathodes for PEFCs

#### S06-038

**Kosuke Nishida** (Faculty of Mechanical Engineering, Kyoto Institute of Technology, Kyoto, Japan), Ryoga Nakauchi, Yuya Maeda, Toyofumi Umekawa, Masahiro Kawasaki

Fiber-Optic Laser Absorption Spectroscopy Techniques for Measuring Water and Oxygen Transports in PEM Fuel Cells

#### S06-039

**Dennis Sun** (*Research and Development, Automotive Fuel Cell Cooperation, Burnaby, Canada*), Max Cimenti, Dorina Manolescu, Wendy Lee, Jasna Jankovic, Viatcheslav Berejnov, Darjia Susac

Characterization of Anodes during Extended Reversal Test

# Proton- & anion-exchange membranes

#### S06-040

**Keisuke Tanimoto** (*Green Hydrogen Research Center, Yokohama National University, Yokohama, Japan*), Kahoru Ikegami, Kensaku Nagasawa, Koichi Matsuzawa, Shigenori Mitsushima

Factors of Toluene Permeation in Proton Exchange Membrane

# S07 Supercapacitors from Materials and Processes to Applications

# Asymmetric and hybrid devices

S07-001

**Sheng Chi Lin** (Chemical Engineering, National Tsing-Hua University, Hsin-Chu, Taiwan), Chen-Chi M. Ma, Chi-Chang Hu

Asymmetric supercapacitors consisting of functional electrospun carbon nanofiber/manganese oxide electrodes with high power and energy densities

# Capacitive/pseudocapacitive electrodes

S07-002

**Thomas Guarr** (*Chemistry*, *Michigan State University Bioeconomy Institute*, *Holland*, *USA*), Kevin Klunder, Yarranton Jonathan

Polymeric Metal Phthalocyanines as Versatile Active Materials in Supercapacitors

S07-003

**Tyler Mathis** (Materials Science and Engineering, Drexel University, A. J. Drexel Nanomaterials Institute, Philadelphia, USA), Katherine van Aken, Kathleen Maleski, James Breslin

Effects of Processing on the Capacitive Performance of Onion-like Carbon

# Electrolytes and interfaces

S07-004

**Krzysztof Fic** (Institute of Chemistry and Technical Electrochemistry, Poznan University of Technology, Poznan, Poland), Mikolaj Meller, Elzbieta Frackowiak

Redox Activity of Sulphur-based Electrolytes in Supercapacitor Application

S07-005

**Jeng-An Wang** (Chemical Engineering Science, National Tsing Hua University, Hsinchu, Taiwan), Chen-Chi M. Ma, Chi-Chang Hu

Novel Alkaline Bifunctional Polymer Electrolytes for Supercapacitors

# Supercapacitor

S07-006

**Hong Bi** (School of Chemistry and Chemical Engineering, Anhui University, Hefei, China), Xiang Zhang, Dong Wang, Zhenbin Fang

Nitrogen-doped porous carbon derived from residuary peanut shell: an excellent electrode material for supercapacitors

S07-007

Le Li (Electronic Materials Research Laboratory, Xi'an Jiaotong University, Xi'an, China)

Improved electrochemical exfoliation of graphite into high-quality graphene for supercapacitor

S07-008

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

Determination of the stability limits for carbon-based electrochemical capacitors

S07-009

**Xu Zhang** (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Ye Chen, Kui Cheng

Preparation of novel polyporous graphene roll electrode for high performance supercapacitors

# System integration and application

S07-010

**Chi-Feng Hsieh** (*Chemical Engineering, National Tsing Hua University, Hsinchu, Taiwan*), Chi-Chang Hu Determination of the Working Potential Windows of Electrode Materials for Capacitance Deionization and Invert Capacitance Deionization

S07-011

Francesca Soavi (Department of Chemistry Giacomo Ciamician, Alma Mater Studiorum - University of Bologna, Bologna, Italy), Stefania Intermite, Catia Arbizzani, Somayeh Gholipour, Silver Hamill Turren Cruz, Juan Pablo Correa-Baena, Michael Saliba, Nick Vlachopoulos, Abdollah Morteza Ali, Anders Hagfeldt, Michael Grätzel Boosting up Perovskite Solar Cell Power Performance by Electrochemical Double Layer Capacitors

# S08 Dealloying: Fundamentals, Application, and Control

# **Dealloying**

S08-001

Kevin Ogle (IRCP, Chimie-Paristech, Paris, France), Peng Zhou

In situ kinetics of the dezincification of Cu-Zn alloys: Uncovering the effect of phase structure and composition

# S09 Ionic Liquids as Media for Electrochemical Synthesis

# **Electrodeposition of reactive metals**

S09-001

**Oliver Schneider** (Institute for Informatics 16, Technical University of Munich, Garching, Germany), Sladjana Martens, Lukas Seidl, Ludwig Asen

Electrochemical Deposition of Niobium from Ionic Liquids

# ILs for energy storage and conversion

S09-002

**Brian Chmielowiec** (Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, USA), Tatsuki Fujimura, Tomohiro Otani, Kiego Aoyama, Toshiyuki Nohira, Takayuki Homma, Antoine Allanore

Connecting Anodic Gas Evolution in Aqueous and High Temperature Molten Electrolyte Systems Via the Current Interrupt Technique

S09-003

**Pekka Peljo** (Laboratoire d'Electrochimie Physique et Analytique, École Polytechnique Fédérale de Lausanne, Sion, Switzerland), Sunny Maye

Copper Based Ionic Liquids for Heat-to-Power Conversion and Storage

S09-004

Carlos Pereira (Chemistry and Biochemistry, Faculty of Sciences University of Porto, Porto, Porto, Portugal), Renata Costa, Iuliia V. Voroshylova, M. Natália D.S. Cordeiro, A. Fernando Silva

Boosting Energy Storage Efficiency by using Ionic Liquids Mixtures - Experimental and Theoretical Insight

# Room temperature molten salts

S09-005

Claudine Buess-Herman (Service de Chimie Analytique et Chimie des Interfaces, Université libre de Bruxelles, Bruxelles, Belgium), Liis Siinor, Anne Meunier, Magdalena Osial, Thomas Doneux

The Electrochemical RTIL-Metal Interface in the Presence of Additives

# S10 Corrosion: Fundamentals, Passivity, and Prevention

#### Corrosion

#### S10-001

Mohammad BinSabt (Chemistry, Kuwait University, Kuwait, Kuwait), Faizah Al-Kharafi, Maryam Abditon, Ahmed Galal

Effect of nanoparticle incorporation in silane-polymer composite coating on corrosion protection of Mg-Zn-Al alloy in aggressive media

#### S10-002

Md. Zaved Hossain Khan (Chemical Engineering, Jessore University, Jessore, Bangladesh), Md Abdul Aziz Anticorrosion Behavior of Bio-drug on Mild Steel Surface: AFM and SEM Characterization

#### S10-003

**Ching-Fang Liu** (Department of Chemical Engineering, National Tsing-Hua University, Hsinchu, Taiwan), Chi-Chang Hu

Effects of pH and electrolytes on the stability of the ZnO nanorods photoanode for the photoelectrochemical water splitting

#### S10-004

Piotr Ozga (Institute of Metallurgy and Material Science, Polish Academy of Sciences, Cracow, Poland), Agnieszka Hara, Zbigniew Swiatek, Janusz Pstrus, Monika Slupska

The Barrier and Electrochemical Properties of CVD Graphene on Copper Substrate

#### S10-005

**Fabiola Pineda** (Department of Mechanical and Metallurgical Engineering, Pontificia Universidad Católica de Chile, Santiago, Chile)

Evaluation of electrochemical impedance spectroscopy as a method for monitoring corrosion of stainless steel in molten nitrate salt

#### S10-006

**Kang Shi** (Department of Chemistry, Xiamen University, Xiamen, China), Zhigang Dong, Yahui Wang, Liwei Ou, Xuan Zheng

Morphologic Evolution of Gallium Nitride Wafer during Photoelectrochemical Etching

#### S10-007

Shruthi Tiruchirapalli Kumar Raj (Department of Chemistry, Michigan State University, East Lansing, USA), Greg Swain

Effects of Rinse Water pH on the Anti-Corrosion Properties of Trivalent Chromium Process (*TCP*) Conversion Coatings on AA2024-T3 Alloy

#### S10-008

Can Berk Uzundal (Chemistry, Bilkent University, Ankara, Turkey), Zulal Beyza Demirkaya, Gozde Karaoglu, Burak Ulgut

Detection of Localized Under-Paint Corrosion Using Acid-Base Indicators and H<sub>2</sub> Permeation

#### S10-009

**Qunjie Xu** (College of Environmental and Chemical Engineering, Shanghai University of Electric Power, Shanghai, China)

The research on preparation of superhydrophobic surfaces of pure copper by hydrothermal method and its corrosion resistance

#### Galvanic corrosion

#### S10-010

Chao Liu (Materials Science and Engineering, University of Virginia, Charlottesville, USA), Robert Kelly Investigation of the Influence of Electrolyte Thickness and Geometric Parameters on the Galvanic Corrosion between Zinc Plate and Stainless Steel Rods

# **Passivity**

S10-011

**Jeffrey Henderson** (*Chemistry*, *Western University*, *London*, *Canada*), Nafiseh Ebrahimi, Samantha Anderson, David Shoesmith, James Noël

The Role of Internal Cathodic Reactions during the Crevice Corrosion of Ni-Cr-Mo Alloys

# Stress corrosion cracking

S10-012

**Juan Creus** (*University of La Rochelle, LaSIE UMR 7356, La Rochelle, France*), Abdelali Oudriss, Remy Milet, Cyril Berziou, Stephane Cohendoz, Xavier Feaugas, Helene Morillot, Jean-Michel Sobrino

Hydrogen embrittlement of martensitic high strength steels: relationship between microstructure and hydrogen diffusion and segregation

# S11 Synthesis and Applications of Electrochemically Active Materials

# **Conducting polymers**

S11-001

**Susana Cordoba de Torresi** (*Instituto de Quimica, Universidade de São Paulo, São Paulo, Brazil*), Arua da Silva, Ana Semeano, Alexander Ulrich

Novel Conducting, Biocompatible and Biodegradable Copolymer PEDOT-co-PLLA for cell growth and differentiation

# **Electroactive composites**

S11-002

**Tsung-Hung Chen** (Chemical Engineering, Ming Chi University of Technology, New Taipei City, Taiwan), Chun-Chen Yang

Comparison different preparation methods for FeF<sub>3</sub>/C composite cathode material and its performance investigation

S11-003

**Hae-Won Cheong** (4th R&D Institute - 4, Agency for Defense Development, Daejeon, Korea), Byung June Park, Seung-Ho Kagn, Tae-Uk Hur

Electrochemical Properties of FeS<sub>2</sub> Thin Film Cathode for Thermal Batteries

S11-004

**Yu-Lun Chuang** (Chemical Engineering, Ming Chi University of Technology, New Taipei City, Taiwan), Chun-Chen Yang

Preparation of graphene oxide coated  $\text{Li}_{1.2}\text{Ni}_{0.2}\text{Mn}_{0.6}\text{O}_2$  by self-assembly process and its electrochemical properties study

S11-005

Rupali Gupta (Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi, India)

Metal Nanoparticles Encapsulated Mesoporous Silica Materials: Novel 3D Hybrid Material for Electroanalytical Applications

S11-006

battery

**Ho-Sung Kim** (Seonam Regional Division, Korea Institute of Industrial Technology (KITECH), Gwangju, Korea), Seung-Hoon Yang, Min-Young Kim, Da-Hye Kim, Ha-Young Jung, Hee-Jung Ban, Hye-Min Ryu, Moo-Sung Lee Fabrication and electrochemical studies of solid electrolyte and cathode composite for all solid lithium secondary

S11-007

**Wei Li** (College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China), Ya-Zhi Zhu, Jintao Yang, Ping Fan, Ming-Qiang Zhong

Light-Motivated pH/Thermal Multi-Sensitive ITO Glass/Polyelectrolyte Composite Electrode

S11-008

Yuhua Shen (School of Chemistry and Chemical Engineering, Anhui University, Hefei, China), Xing Zhang, Anjian Xie

Facile Synthesis and Electrochemical Performance of Porous N-C/Co<sub>3</sub>O<sub>4</sub> Nanocomposite

S11-009

Chao-Nan Wei (Chemical Engineering, Ming Chi University of Technology, New Taipei City, Taiwan), Chun-Chen Yang

Li-O<sub>2</sub> battery based on electrospinning PVDF/PET/PVDF nanofiber non-woven membrane and perovskite La<sub>0.5</sub>Ce<sub>0.5</sub>Fe<sub>0.5</sub>Mn<sub>0.5</sub>O<sub>3</sub> bi-functional catalyst

S11-010

Chun-Chen Yang (Chemical Engineering, Ming Chi University of Technology, New Taipei City, Taiwan), Cheng-En You

Improved electrochemical performance of  $\mathrm{Li_{1}\cdot_{2}Ni_{0.16}Mn_{0.56}Co_{0.08}O_{2}}$  cathode materials by ruthenium oxide surface modification

#### **Electroactive materials**

S11-011

**Junfeng Han** (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Guiling Wang, Yongde Yan, Yiju Li

A Sensitive Amperometric Sensor for Determination of Ascorbic Acid Based on Network-like Carbon Nanosheets Modified Glassy Carbon Electrode

S11-012

**Semi Han** (Green Materials and Process R&D Group, Korea Institute of Industrial Technology (KITECH), Cheonan, Korea)

Effect of imidazole and amine mixture on corrosion inhibition

S11-013

**Semi Han** (Green Materials and Process R&D Group, Korea Institute of Industrial Technology (KITECH), Cheonan, Korea)

Effect of imidazole and their derivatives on corrosion inhibition

S11-014

**Seunghae Hwang** (Department of Chemical and Biological Engineering, Seoul National University, Seoul, Korea) Ni(II)-chelated Thio-crown Complex as Single Redox Couple for Non-aqueous Flow Batteries

S11-015

**Hyejeong Jeong** (Department of Chemical and Biological Engineering, Seoul National University, Seoul, Korea), Jongjung Kim, Seunghae Hwang, Seulki Chae, Jiyong Soon, Taejin Lee, Ji Heon Ryu, Seung M. Oh

Thermal Degradation of Li/LiCoO2 Half-Cell at Moderately Elevated Temperature

S11-016

**Matthew Lawrence** (School of Chemistry, University of Brimingham, Birmingham, United Kingdom), Nick Adkins, Joaquin Rodriguez-Lopez, Paramaconi Rodriguez

Synthesis of mixed metal oxides nanomaterials with enhanced photocatalytical activity by combination of direct laser fabricated-alloys and cathodic corrosion

S11-017

Nonhlangabezo Mabuba (Applied Chemistry, University of Johannesburg, Johannesburg, South Africa), Olayiwola Azeez Idris, Omotayo Arotiba

Electrochemical Detection of Selenium in Water using Glassy Carbon Electrode Modified with Reduced Graphene Oxide

#### S11-018

**Cecilia Manzur** (*Quimica, Pontificia Universidad Catolica de Valparaiso, Valparaiso, Chile*), J.P. Soto, G. Ahumada, D. Carrillo, M. Angelica del Valle, J.-R. Hamon

Synthesis and Characterization of Metal Complexes Containing Thiophene Units Toward Metallopolymers to Modify Electrodes

#### S11-019

**Tomasz Rebis** (Faculty of Chemical Technology, Poznan University of Technology, Poznan, Poland), Grzegorz Milczarek

Synthesis and Electrochemical Characterization of Lignosulfonate-Stabilized Prussian Blue Nanoparticles

#### S11-020

**Dominic Rochefort** (Departement de Chimie, Universite de Montreal, Montreal, Canada), Han Jin Xie, Bruno Gelinas

Functionalised Ionic Liquids as Novel Electroactive Materials

#### S11-021

**Jirui Wang** (Department of Chemical Engineering, University of Massachusetts Lowell, USA), Junwei Su, Fan Gao, Hongwei Sun, Zhiyong Gu

Electrodeposition of Multi-segment Metallic Nanowires and their Self-Assembling Applications

#### S11-022

**Long Yang** (Harbin Engineering University, University, Harbin, China)

TePbPt@PbPt core shell nanowires as highly active and durable electrocatalysts for methanol oxidation reaction

#### S11-023

Andrea Zaffora (Electrochemical Materials Science Laboratory, DICAM, University of Palermo, Palermo, Italy), Hiroki Habazaki, Francesco Di Franco, Francesco Di Quarto, Monica Santamaria

Growth kinetics and physicochemical characterization of Hf-Nb anodic mixed oxides

#### **Electrocatalysis**

#### S11-024

**Hamed Ataee-Esfahani** (*Chemistry, Georgetown University, Washington, USA*), Dejun Chen, YuYe J. Tong Electrocatalysis of Direct Methane Oxidation on Transition Metal Catalysts

#### S11-025

Wei Chen (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, CAS, Changchun, China), Ruizhong Zhang, Yizhong Lu, Minmin Liu, Xiaokun Li

2- and 3-Dimensional Nanocomposites for Electrocatalysis

#### S11-026

**Sun Juanjuan** (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Hu Shu, Su Haisheng

In-situ monitoring the electrodeposition of silver nanoplates and its catalytic applications

#### S11-027

Masaru Kato (Faculty of Environmental Earth Science, Hokkaido University, Sapporo, Japan), Marika Muto, Naohiro Matsubara, Ichizo Yagi

Copper- and Nitrogen-Incorporated Carbon Electrocatalyst with Bio-Inspired Multinuclear Active Sites for Oxygen Reduction Reaction

#### S11-028

Pierre Millet (ICMMO, Paris-Sud University, Orsay, France), Angel Villagra, Alireza Ranjbari, Loïc Assaud, Akihiko Kudo

Photo-electrochemical Water Dissociation using Rh-doped  $SrTiO_3$  Surface-modified by Nickel N,N -dimethylamminoethyl amine

#### S11-029

Marcos Teixeira (School of Science and Technology, Sao Paulo State University (UNESP), Brazil), Fernanda Anastacio, Diego N. David-Parra, Patricia Seraphim, Eduardo Gonzalez

Electrochemical Reduction Aqueous of  $\mathrm{CO}_2$  on Electrode Coated with Redox Active Nano-Metallopolymer of Nickel(II)-Salen

S11-030

**Gunther Wittstock** (Chemistry, Carl von Ossietzky University of Oldenburg, Oldenburg, Germany), Shokoufeh Rastgar

Visible-Light-Driven Water Oxidation at Polarized Liquid-Liquid Interfaces

S11-031

**Qing Yan** (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Tong Wei, Guiling Wang

Converting FeNi hydroxides into Fe-Ni phosphides as bifunctional electrodes for efficient overall water splitting

#### Nanostructured electrodes

S11-032

**Marco Altomare** (Department of Materials Science and Engineering WW4-LKO, University of Erlangen-Nuremberg, Erlangen, Germany), Nhat Truong Nguyen, Seyedsina Hejazi, Patrik Schmuki

Anodic TiO<sub>2</sub> Nanocavity Arrays for the Fabrication of Au-WO<sub>3</sub>-TiO<sub>2</sub> Photocatalysts

S11-033

**Carlos Cevallos-Morillo** (*Química Analítica, Universidad Autónoma de México, Ciudad de México, Mexico*), Julio César Aguilar-Cordero

Copper(II) Determination with Modified Carbon Nanotubes Electrodes using Dyes as Ligands

S11-034

**Luigi Falciola** (*Dipartimento di Chimica, Università degli Studi di Milano, Milano, Italy*), Valentina Pifferi, Luca Rimoldi, Francesco Segrado, Guido Soliveri, Daniela Meroni, Silvia Ardizzone

Controlled Mesostructures of Solid-Templated Silica: Preparation and Electrochemical Characterization

S11-035

Guang-Ya Hou (College of Materials Science and Engineering, Zhejiang University of Technology, Hangzhou, China), Yu Chen, Huazhen Cao, Yiping Tang, Lian-Kui Wu, Guoqu Zheng

Microstructure and Electrochemical Properties of Ni-Ti-O Nanosheets Supported on Ni Foam

S11-036

**Egon Kecsenovity** (Department of Physical Chemistry and Materials Science, University of Szeged, Szeged, Hungary), Balázs Endrodi, Csaba Janáky

Enhanced Photoelectrochemical Performance of Cuprous Oxide/ Graphene Nanohybrids

S11-037

**Duduzile Nkosi** (Applied Chemistry, University of Johannesburg, Johannesburg, South Africa), F.O. Grace Olorundare, Omotayo Arotiba

Voltammetric determination of nitrophenols at a Ni(II) dimethylglyoxime complex – gold nanoparticles modified electrode

S11-038

**Guoqu Zheng** (College of Materials Science and Engineering, Zhejiang University of Technology, Hangzhou, China), Wei Ning, Dagan Chai, Liqiang Zhang, Hao Wu, Zhenyu Tai, Huazhen Cao

Highly Active and Stable CuO Catalyst Embedded in TNTs for the Photoelectrochemical Reduction of Carbon Dioxide

S11-039

**M.** Angelica del Valle (Facultad de Quimica, Pontificia Universidad Catolica de Chile, Santiago, Chile), Andres Ramirez, Francisco Armijo, Fernando Diaz, Andres Ramirez, Eduardo Ortega

Electrodes Electrochemically Modified with PEDOT Nano-wires. Assay in Photovoltaic Cells Based on Conducting Polymers

# **POSTERS**

#### S12 Electrochemical Technology for solving 21st Century Challenges

#### Electrochemical cell design and optimization

S12-001

**Trevor Braun** (Materials Science and Engineering Division, National Institute of Standards and Technology, Gaithersburg, USA), Daniel Schwartz

Remote Control Electrodeposition: Patterning on Substrates without Direct Electrical Connections

#### Electrochemistry for sustainable processes

S12-002

Christian E. Alvarez-Pugliese (School of Chemical Engineering, Universidad del Valle, Cali, Colombia), Jovannis A. Comas-Cabrales, Jorge I. Londoño-Escobar, Nilson Marriaga-Cabrales, Fiderman Machuca-Martínez, Juan Manuel Barraza Burgos

Electro-elution of Aurodicyanide Adsorbed on Granular Activated Carbon

S12-003

**Annick Hubin** (*Electrochemical and Surface Engineering, Vrije Universiteit Brussel, Brussels, Belgium*), Benny Wouters, Jonas Hereijgers, Wim De Malsche, Tom Breugelmans

Operation of a microfluidic reactor designed for cogeneration of valuable chemicals and electricity

S12-004

Yuriy Tolmachev (Ftorion, Mendeleev University, Moscow, Russia)

Hydrogen-Hypobromite Flow Battery

S12-005

**Mary-Elizabeth Wagner** (Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, USA)

Refining Precious Metals in Molten Sulfide Electrolytes

#### Electrode materials and electrocatalysis

S12-006

Michael George (Ernst-Berl Institute, Technical University Darmstadt, Darmstadt, Germany), Guirong Zhang, Bastian J.M. Etzold, Macarena Munoz

Boosting the performance of Pt/C catalysts for the oxygen reduction reaction through modification with hydrophobic ionic liquids

S12-007

**Ren-Hau Guo** (*Chemical Engineering*, *National Tsing Hua University*, *Hsinchu*, *Taiwan*), Chi-Chang Hu

Dependence of adsorbed CO on electrode potentials and electrolytes for electrocatalytic reduction of CO<sub>2</sub> on Pd nanoparticles

#### Electroplating and another surface modification and protection technologies

S12-008

Yunny Meas (Electrochemistry, CIDETEQ, Pedro Escobedo, Mexico), Adrián Sosa Domínguez, José de Jesús Pérez Bueno

Corrosion behavior of thermally treated black Ni-P coatings

#### **Energy conversion systems**

S12-009

**Karel Bouzek** (Department of Inorganic Technology, University of Chemistry and Technology Prague, Prague, Czech Republic), Tomas Bystron, Martin Paidar, Martin Vesely

Anode Catalyst Contact Resistance as a Limiting Aspect of the PEM Water Electrolysis Performance and Durability

#### S12-010

**Juan Manríquez** (Department of Science, Centro de Inv. y Des. Tecnológico en Electroquímica SC, Pedro Escobedo, Mexico), Karina Herrera-Aguilar, Erika Bustos, Rosalba Fuentes-Ramírez

Using of binary mixtures of propylene carbonate and 3-methoxypropionitrile for preparing the electrolytes of black dye-sensitized solar cells: Effect of molar fractions on fill factor and global conversion efficiency

#### S12-011

**Bharathy Subramanian Parimalam** (*Chemistry, University of Rhode Island, Kingston, USA*), Brett Lucht Insights into the Stability of Lithium-Ion Battery SEI Components in LiPF<sub>6</sub> Containing Electrolytes

#### **Environmental protection and remediation**

#### S12-012

**Erika Bustos** (*Science*, *Centro de Inv. y Des. Tecnológico en Electroquímica S.C.*, *Pedro Escobedo*, *Mexico*), Rosa Alhelí Herrada, Gustavo Acosta, Juan Manríquez

Application of IrO<sub>2</sub>-Ta<sub>2</sub>O<sub>5</sub> | Ti Electrodes to Environment Electrochemistry

#### S12-013

**Locksley Castaneda Ulloa** (Departamento de Ingenieria Geomatica e Hidraulica, Universidad de Guanajuato, Guanajuato, Mexico), Jose Luis Nava Montes de Oca

Electrochemical generation of ozone using Ir-Sn-Sb oxide anodes

#### S12-014

**Dan Chen** (School of Environmental and Biological Engineering, Nanjing University of Science and Technology, Nanjing, China), Jinyou Shen, Lianjun Wang

N-doped Graphene/ $\alpha$ -Fe $_2$ O $_3$  Modified Photoanode for Enhanced Pyridine Degradation in Integrated Bioelectro-photocatalytic System

#### S12-015

**José Duarte** (Institute of Chemistry and Biotechnology, Federal University of Alagoas, Maceió, Brazil), Carmem Zanta, Anyelle Santos, Jéssica Melo, Alice Ferro, Edirlan Monteiro

Fenton and electrochemical reactions in the treatment of effluent from the orange soft drinks industry

#### S12-016

Lidia Carolina Espinoza Cisternas (Química de los Materiales, Universidad de Santiago de Chile, Chile), Ricardo Salazar

sp<sup>3</sup>/sp<sup>3</sup> ratio in BDD electrodes: effect on the degradation of Aniline and the generation of oxidant species

#### S12-017

**Sergi Garcia-Segura** (*Departament de Química Física*, *Universitat de Barcelona*, *Barcelona*, *Spain*), Sergi Dosta, Marco Robotti, Irene Garcia Cano, Josep Maria Guilemany, Enric Brillas

Influence of Photoanodes Structural Characteristics on the Solar Photoelectrocatalytic Properties of  ${\rm TiO}_2$  Coatings

#### S12-018

**Karine Groenen Serrano** (*Laboratoire de Genie Chimique*, *Universite Paul Sabatier*, *Toulouse*, *France*), Jingju Cai, Minghua Zhou, Andre Savall

Electrochemical oxidation of 2,4 Dichlorophenoxyacetic acid with sulfate radical generated by electrosynthesis of peroxodisulfate

#### S12-019

**Mariana Lanzarini-Lopes** (Environmental Engineering, Arizona State University, Tempe, USA), Sergi Garcia-Segura, Paul Westerhoff

Degradation Mechanisms and Kinetics of Electrochemical Oxidation of Chlorinated Pollutant p-Chlorobenzoic Acid

#### S12-020

**Javier Llanos** (Department of Chemical Engineering, University of Castilla-la Mancha, Ciudad Real, Spain), José Fernando Pérez, Inmaculada Moraleda, Cristina Sáez, Pablo Cañizares, Manuel Andres Rodrigo

Coupling Anodic Processes with Cathodic H<sub>2</sub>O<sub>2</sub> Generation for Environmental Remediation Processes

# POSTERS

#### S12-021

**Weiwei Lu** (School of Chemical Engineering & Pharmaceutics, Henan University of Science and Technology, Luoyang, China)

Photoelectrochemical Reduction of Carbon Dioxides

#### S12-022

Carlos Alberto Martínez-Huitle (Institute of Chemistry, Federal University of Rio Grande do Norte, Natal, Brazil), Karla Caroline de Freitas Araújo, Jéssica P. de Paiva Barreto, Danyelle Medeiros de Araújo, Aline Maria Sales Solano Investigation of persulfate production on BDD anode by understanding the impact of water concentration

#### S12-023

Yunny Meas (Electrochemistry, CIDETEQ, Pedro Escobedo, Mexico), Florencio Garcia-Lugo, Alejandro Medel, José Luis Jurado Baizaval, Petia Mijaylova Nacheva, Alfonso Durán Moreno, Modesto Javier Cruz Gómez, Luis Godínez Electrochemical Oxidation of effluents from desalting crude oil

#### S12-024

**José Luis Nava** (Department of Geomatic and Hydraulic Engineering, University of Guanajuato, Guanajuato, Mexico), Zaira Aguilar, Enric Brillas, Mercedes Salazar, Ignasi Sirés

Electrocatalytic Oxidation of Acid Yellow 36 Azo Dye via Fenton-Like Reaction with Active Chlorine and Iron Ion

#### S12-025

Ali Othman (Chemistry and Biomolecular Science, Clarkson University, Potsdam, USA), Silvana Andreescu Electrochemical Sensor for the Real-Time Monitoring of Nitrogen and Phosphorous Containing Species in the Environment

#### S12-026

**Tzayam Pérez** (Chemical Engineering, Universidad de Guanajuato, Guanajuato, Mexico), Rosa Luz López, José Luis Nava, Isabel Lázaro, Guillermo Velasco, Roel Cruz, Israel Rodríguez

Electrochemical oxidation of cyanide on 3D Ti-RuO2 anode using a filter-press electrolyzer

#### S12-027

**Manuel Andres Rodrigo** (*Chemical Engineering, Universidad de Castilla-la-Mancha, Ciudad Real, Spain*), Silvia Barba, Ruben Lopez-Vizcaino, Cristina Sáez, Jose Villaseñor, Pablo Cañizares, Vicente Navarro

Scale up of the electrokinetic treatment assisted with a biological permeable reactive barrier of an herbicide-polluted soil

#### S12-028

**Elisama Santos** (School of Science and Technology, University Federal of Rio Grande do Norte, Natal, Brazil), Suely S.M. Paiva, Rijkaard R. F. Cantarele, Juliana B. Barros, Carlos Alberto Martínez-Huitle, Djalma R. Silva

Remediation of petroleum from contaminated soil by electrokinetic, Fenton and phytoremediation technology

#### S12-029

Jorge Vidal (Departamento Química de los Materiales, Universidad de Santiago de Chile, Santiago, Chile), Ricardo Salazar, Cesar Huiliñir

Combination of anaerobic digestion and solar photo electro-Fenton processes to remove organic matter from a synthetic slaughterhouse wastewater

#### S12-030

Sarai Vivas Galarza (School of Chemical Engineering, Universidad del Valle, Cali, Colombia), Luz Andrea Prado Arce, Jawer David Acuña-Bedoya, Nilson Marriaga-Cabrales, Christian E. Alvarez-Pugliese

Electrolytic Regeneration of Granular Activated Carbon Saturated with Diclofenac

#### S12-031

**Yonghao Zhang** (School of Environmental and Biological Engineering, Nanjing University of Science and Technology, Nanjing, China), Weiqing Han, Xiuyun Sun, Jiansheng Li, Jinyou Shen, Lianjun Wang

Low cost of tubular porous electrode reactor for electrochemical treatment of anticancer drugs wastewater

#### Mathematical modelling of electrochemical systems

S12-032

**Fan He** (*Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA*), Xiao Su, Martin Bazant, T. Alan Hatton

Simulation of electrochemical adsorption system for water treatment

#### Safe water

S12-033

**Yinying Ren** (Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA), Xianwen Mao, Wenda Tian, De Xin Chen, Sarah Curtis, Marjorie Buss, Gregory Rutledge, T. Alan Hatton

Electrochemically Tunable Affinity Separation with High Energetic Efficiencies for the Removal of Organic Pollutants from Water

#### S13 The Green Potential of Molecular Electrochemistry

#### **Biomass**

S13-001

Christophe Coutanceau (IC2MP, University of Poitiers, Poitiers, France), Jesus Gonzalez-Cobos, Stève Baranton Development of Bismuth-Modified Pt Nanocatalysts for the Electrochemical Reforming of Polyols into Hydrogen and Low Oxidized C3 Species

#### Electrosynthesis

S13-002

Roel Bisselink (Functional Ingredients, TNO, Zeist, Netherlands)

Electrosynthesis of valeric acid

S13-003

Roman Latsuzbaia (Sustainable Process and Energy Systems, TNO, Delft, Netherlands), Roel Bisselink, Marc Crockatt, Mark Roelands, Earl Goetheer

Electrochemical synthesis of furandicarboxylic acid

S13-004

Maximilian Selt (Institute of Organic Chemistry, Johannes Gutenberg University, Mainz, Germany), Stamo Mentizi, Siegfried Waldvogel

New Methods for the Electrochemical Synthesis of 3,3,5,5-Tetramethyl-2,2-biphenol

#### **Green catalysts**

S13-005

Binbin Huang (Environmental Science and Engineering, Hunan University, Changsha, China)

Effective and simultaneous removal of humic acids and Cr(VI) by electro-Fenton with  $H_2O_2$  in-situ electrogenerated on Pd loaded  $Fe_3O_4$  nanoparticles

#### Green solvents and electrolytes

S13-006

Patrizia Romana Mussini (Dipartimento di Chimica, Università degli Studi di Milano, Milano, Italy), Serena Arnaboldi, Simona Rizzo, Voichita Mihali, Armando Gennaro, Abdirisak Ahmed Isse, Sannicolò Francesco "Inherently Chiral" Ionic Liquid Media: Enantioselective Voltammetry on Achiral Electrodes

#### Modified surfaces

S13-007

Maria Soledad Ureta-Zañartu (Ciencias del Ambiente, Facultad de Química y Biología, Universidad de Santiago de Chile, Santiago, Chile), Jorge Castro, Francisco Fernández

Degradation of Chlorophenols on electrodes based on Graphite M-exchanged Zeolite with M= Mo and/or Co

S13-008

Maria Soledad Ureta-Zañartu (Ciencias del Ambiente, Facultad de Química y Biología, Universidad de Santiago de Chile, Santiago, Chile), Marco Vega, Francisco Fernández

Preparation and characterization of ITO/TiO<sub>2</sub> electrodes doped with Ni or Co and its use in the Picloram degradation

## S14 Let there be Light in Electrochemistry: From Electrogenerated Chemiluminescence to Fluorescence

#### Analytical and bioanalytical applications

S14-001

**Yujin Tong** (*Physical Chemistry*, *Fritz Haber Institute of the Max Planck Society*, *Berlin*, *Germany*), Francois Lapointe, R. Kramer Campen

Probing ultrafast processes at electrode-electrolyte interfaces with photovoltage measurements

#### Electrogenerated chemiluminescence

S14-002

**Chen Cui** (School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China), Jun-Jie Zhu, Dechen Jiang

Attomole Antigen Detection Using Self-Electrochemiluminous Graphene Oxide-Capped Au@L012 Nanocomposite

S14-003

**Lingling Li** (School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China) Electrochemiluminescence Immunosensor Based on Resonance Energy Transfer

## S15 Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the Electrochemical Interface

## In situ spectroscopies (infrared, Raman, X-ray, UV)

S15-001

**Liang Chen** (*Chemistry, Xiamen University, Xiamen, China*), Li-Qiang Xie, Yong Hui, Yan-Yan Tan, Jian-Zhang Zhou, Jia-Wei Yan, Bing-Wei Mao, Zhong-Qun Tian

Critical Roles of Electron Transporting Layer in Perovskite Solar Cells

S15-002

**Yu Gu** (Department of Chemistry, Xiamen University, Xiamen, China), Shuai Tang, Zhi-Cong Zeng, Wei Zhang, Jia-Wei Yan, Bin Ren, Bing-Wei Mao, Zhong-Qun Tian

In Situ Raman Spectroscopic Studies on Lithium Electrode/Electrolyte Interfaces Based on Different Plasmon-Enhancement Strategies

S15-003

**Dilni Kaveendi Koggala Wellalage** (*Chemistry, University of Rhode Island, Kingston, USA*), Cao Cuong Nguyen, Brett Lucht, Yuzi Zhang, Bharathy Subramanian Parimalam

Effects of Alkali Metal Ions on the SEI Formation at Graphite Anode in Propylene Carbonate Based Electrolytes

S15-004

Chao-Yu Li (Chemistry Department, Xiamen University, Xiamen, China), Jian-Feng Li, Zhong-Qun Tian Plasmon-Enhanced Ultra-Sensitive Surface Analysis with Shell-Isolated Mode

S15-005

Elizabeth Stricker (Department of Chemical and Biomolecular Engineering, Case Western Reserve University, Cleveland, USA), Jesse Wainright, Robert Savinell, Raymond Unocic

Utilizing in Situ ec-S/TEM to Study Electrochemical Nucleation of Copper

S15-006

**Li-Qiang Xie** (*Department of Chemistry, Xiamen, China*), Ding Ding, Meng Zhang, Ming-Shu Chen, Bing-Wei Mao, Zhong-Qun Tian

TiO<sub>2</sub> Single Crystal Electrodes for in-situ SERS Investigation of TiO<sub>2</sub>/N719 Interfaces

#### Structural methods (X-ray diffraction, AFN, STM, SECM, etc.)

S15-007

**Yuvraj Birdja** (*Catalysis and Surface Chemistry, Leiden Institute of Chemistry, Leiden, Netherlands*), Marc Koper The Importance of Cannizzaro-Type Reactions during Electrocatalytic Reduction of Carbon Dioxide

#### Surface science approach

S15-008

**Helmut Baltruschat** (*Electrochemistry*, *Bonn University*, *Bonn*, *Germany*), Ahmed Shatla, Abdelaziz Abd-El-Latif, Sevda Ayata, Dilek Coban

Electrochemical Studies of Iodide Adsorption at Au (111) Electrode in Propylene Carbonate

S15-009

**Dan Bizzotto** (*Chemistry, University of British Columbia, Vancouver, Canada*), Elizabeth Fisher, Kaylyn Leung, Jannu Casanova-Moreno

Comparing Electrochemical and Electroless Methods for the Selective Surface Modification of the 111 Surface on a SAM modified Gold Bead Electrode

S15-010

**Thomas Vagn Hogg** (*Physics, Technical University of Denmark, Kgs Lyngby, Denmark*), Erlend Bertheussen, Anders Bodin, Jakob Kibsgaard, Ifan E.L. Stephens, Ib Chorkendorff

CO<sub>2</sub> and CO Reduction on Mass-Selected Cu Nanoparticles

S15-011

**Shuo Liu** (College of Chemistry and Chemical Engeneering, Xiamen University, Xiamen, China), Shuo-Hui Cao, Na Tian, Kai-Qiang Lin, Zhi-You Zhou, Yao-Qun Li, Shi-Gang Sun

The Fluorescence Enhancement Mediated by High-index-faceted Pt Nanoparticles: the Roles of Crystal Structure

S15-012

**Fouad Maroun** (*Laboratoire de Physique de la Matiere Condensee*, *CNRS*, *Ecole Polytechnique*, *Palaiseau*, *France*)

A new probe of the electrochemical interface: surface magnetism

S15-013

**Kevin Raheem** (DIT School of Chemical & Pharmaceutical Science, DIT Applied Electrochemistry Group, Dublin, Ireland), John Cassidy, Anthony Betts, Bernard Ryan

Investigation of Cyanoacrylate Adhesive Bond Curing and Durability using Electrochemical Impedance Spectroscopy and Chronoamperometry

#### Theoretical and computational methods

S15-014

**Anatoly Antipov** (Electroactive Materials and Electrochemical Energetics, Dmitry Mendeleev University of Chemical Technology of Russia, Moscow, Russia), Natalia Sherstneva, Vladimir Andreev, Mikhail Vorotyntsev

Very strong current regime for bromate reduction

S15-015

**Maofeng Dou** (*GREEN*, *National Institute of Materials Science*, *Tsukuba*, *Japan*), Shota Iizuka, Yasuaki Einaga, Yoshitaka Tateyama

DFT study on Electrochemical Reductions of CO<sub>2</sub> on Boron-doped Diamond Interfaces

S15-016

**Yuriy Tolmachev** (*Ftorion Inc.*, *Mendeleev University*, *Moscow*, *Russia*), Anatoly Antipov, Olga Sereda, Mikhail Vorotyntsev

Effects of proton transport limitations in bromate reduction process

S15-017

**Mikhail Vorotyntsev** (Electroactive Materials and Electrochemical Energetics, Dmitry Mendeleev University of Chemical Technology of Russia, Moscow, Russia), Anatoly Antipov, Olga Istakova

Generalized Nernst Layer model for ion transport. Bromate reduction

#### S16 Electrochemistry of Metal Clusters and Nanoparticles

#### **Electron transfer**

S16-001

**Christophe Renault** (*Chemistry*, *Palaiseau*, *France*), Fouad Maroun, Philippe Allongue Electron Transfer at Tunneling Nanoelectrodes

#### **Nanoparticles**

S16-002

**Je Hyun Bae** (Department of Chemistry and Biochemistry, Queens College-CUNY, Flushing, USA), Ricardo F. Brocenschi, Michael V. Mirkin

Dissolution of Pt during Oxygen Reduction Reaction Produces Pt Nanoparticles

S16-003

Taehoon Cho (Department of Chemistry, Kyung Hee University, Seoul, Korea), Joohoon Kim

Galvanic Exchange Synthesis of Pt Nanoparticles Encapsulated inside Dendrimers and Their Size-dependent Catalytic Activity to Dehydrogenation of Ammonia Borane

S16-004

**Anne Co** (*Chemistry and Biochemistry, The Ohio State University, Columbus, USA*), Eric Coleman, Joshua Billy, Heewon Choi

Metallic Foams as a Platform for Synthesizing Active Oxygen Reduction and Alcohol Oxidation Nanoparticle Catalysts

S16-005

**Christian Durante** (*Chemical Sciences, University of Padova, Padova, Italy*), Riccardo Brandiele, Giorgio Mattiacci, Mirco Zerbetto, Gian Andrea Rizzi, Armando Gennaro

A combined DFT and Experimental Approach for Probing Metal-Support Interaction in Pt nanoparticle supported on Nitrogen Functionalized Mesoporous Carbon

S16-006

Minseok Kim (Chemistry, Yonsei University, Seoul, Korea), Kyuju Kwak, Alam Venugopal Narendra Kumar, Dongil Lee

Effect of metal doping on the electronic structure of M<sub>2</sub>Au<sub>36</sub>(SC<sub>6</sub>H<sub>13</sub>)<sub>24</sub> (M=Pt, Pd)

#### S16-007

Kevin Kirk (Chemistry and Biomolecular Science, Clarkson University, Potsdam, USA), Anahita Karimi, Silvana Andreescu

Electrochemical Investigation of pH-Dependent Properties of Polymer-Capped Nanoparticles

#### S16-008

**Leatham Landon-Lane** (Chemical and Process Engineering, University of Canterbury, Christchurch, New Zealand), Anna Farquhar, Alison Downard, Aaron Marshall

Gold nanoparticles bound to single carbon fibers via a linker derived from an aryldiazonium salt

#### S16-009

Marcin Opallo (Department of Electrode Processes, Institute of Physical Chemistry PAS, Warsaw, Poland), Marcin Holdynski, Joanna Dolinska

Strirring nanoparticles: electrochemical behaviour of suspended Prussian Blue nanoparticles

#### S16-010

Rukshan Perera (School of Engineering, Brown University, Providence, USA), Jacob Rosenstein

In-Situ Generation of Metal Nanoparticles from Quasi Reference Electrodes Used in Confined Electrochemical Devices

#### S16-011

Chi Xiao (College of Chemistry and Chemical engineering, Xiamen University, Xiamen, China), Na Tian, Shi-Gang Sun

Shape Transformation of Pt Nanocrystals with High-index Facets and Low-index Facets

#### Redox catalysis

#### S16-012

**Laurent Ruhlmann** (*Chemistry, Université de Strasbourg, Strasbourg, France*), Shu Yang, Antoine Bonnefont Electrocatalytic reduction of NO<sub>x</sub> with polyoxometalate and/or nanoparticles

## S17 Advances in Theory and Modeling of Electrochemical Systems

#### Multiscale modeling

#### S17-001

Jiangjin Liu (Mechanical Engineering, Tufts University, Medford, USA), Iryna V. Zenyuk

Bridging Nano and Micro Scales to Model Transport Processes in PGM-free Electrodes in Polymer Electrolyte Fuel Cells

#### S17-002

**Manik Mayur** (Institute of Energy Systems Technology (INES), Offenburg University of Applied Sciences, Offenburg, Germany), Bjoern Weisshar, Wolfgang G. Bessler

Simulation-Based Degradation Assessment of Dynamic Load Cycles for Lithium-Ion Batteries

#### S17-003

Irina Svir (Chemistry, CNRS UMR 8640, Paris, France), Alexander Oleinick, Yun Yu, Michael V. Mirkin, Christian Amatore

Theory and Simulations for the Electron-Transfer/Ion-Transfer Mode of Scanning Electrochemical Microscopy in the Presence or Absence of Homogenous Kinetics

#### S17-004

**Hongbo Zhao** (Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA), Martin Bazant

The Nucleation and Insertion Dynamics in Lithium Intercalation Materials in 2D

#### Theory of solid-electrolyte interfaces

S17-005

**Michael McEldrew** (Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA), Martin Bazant

The Electrical Double Layer in 'Water-in-Salt' Electrolytes: Theory and Molecular Dynamics Simulations

S17-006

**Masahiro Yamamoto** (Department of Chemistry, Konan University, Kobe, Japan)

First-principles calculation of the surface interaction of Li with graphite and oxide

S17-007

**Zhenhua Zeng** (School of Chemical Engineering, Purdue University, West Lafayette, USA), Zhenhua Zeng, Jeff Greeley

Modeling the solvent effects at the water/Pt interfaces

#### S18 Education for Electrochemistry and Electrochemical Engineering

#### **Education for electrochemistry**

S18-001

**Julie Renner** (*Chemical & Biomolecular Engineering, Case Western Reserve University, Cleveland, USA*), Uziel Landau, Robert Savinell, C.C. Liu, Jesse Wainright, Rohan Akolkar, Heidi Martin, Burcu Gurkan

The Electrochemical Engineering Program at Case Western Reserve University

#### S19 General Session

#### Analytical electrochemistry

S19-001

**Diego N. David-Parra** (Dept. of Chemistry and Molecular Physics, Institute of Chemistry, University of Sao Paulo (USP), Sao Carlos, Brazil), Eder T. G. Cavalheiro, Marcos Teixeira

 $\eta$ -Metallopolymer (Poly[Ni(Salpn)] for Electrocatalytic Detection of the Dissolved Oxygen by Electroanalytical Method

S19-002

**Orlando Fatibello-Filho** (Department of Chemistry, Federal University of São Carlos, São Carlos, Brazil), Tiago Almeida Silva, Ademar Wong

Electrochemical sensor based on an ionic liquid and carbon black for the determination of nanomolar levels of the Allura Red colorant

S19-003

**Omolola Fayemi** (*Chemistry, North-West University, Mafikeng, South Africa*), Abolanle Saheed Adekunle, Eno Ebenso

Metal Oxide Nanoparticles / Pani Nanocomposite Modified Glassy Carbon Electrode for the Detection of Dopamine

S19-004

Fabio La Mantia (Energiespeicher- und Energiewandlersysteme, Universität Bremen, Bremen, Germany), Dominique Koster, Maximilian Patzauer, Alberto Battistel, Katharina Krischer

Dynamic Multi-Frequency Analysis of the Oscillatory Electro Dissolution of p-type Silicon

S19-005

Thiago Selva (Fundamental Chemistry, Institute of Chemistry, University of São Paulo, Sao Paulo, Brazil), Thiago Paixão

Electroanalytical Method for Isoprocarb Pesticide Using a Boron-Doped Diamond Electrode

S19-006

José Silva (Institute of Chemistry, University of Sao Paulo, Sao Paulo, Brazil), William Araujo, Thiago Paixão Low-Cost Paper-Based Electrochemical Device for Metal Analysis in Urine

S19-007

Claudia Yañez (Facultad de Ciencias Químicas y Farmacéuticas, Universidad de Chile, Santiago, Chile), Ana María Mendez

Amino-Cyclodextrins Modified Gold Electrodes for Detection of Bentazone

#### Bioelectrochemistry

S19-008

**Shogo Nakagawa** (*Graduate School of Environmental Science, Hokkaido University, Sapporo, Japan*), Masaru Kato, Takehiko Tosha, Ichizo Yagi

Surface-Enhanced Infrared Absorption Spectroscopy of Nitric Oxide Reductase Immobilized on Au Electrodes

#### Electrochemical energy conversion and storage

S19-009

**Federico Bella** (Department of Applied Science and Technology, Politecnico di Torino, Torino, Italy), Gianmarco Griffini, Juan Pablo Correa-Baena, Guido Saracco, Michael Grätzel, Anders Hagfeldt, Stefano Turri, Claudio Gerbaldi Light-Induced Design of Fluoropolymers as Efficiency and Stability Booster for Perovskite Solar Cells

S19-010

**Joo-Yul Lee** (*Electrochemistry Department, Changwon, Korea*), Yongsoo Jeong Adhesion Control Mediated by Organic Molecules at Metal/Non-metal Interface

S19-011

**Milua Masikini** (*Chemistry*, *University of The Western Cape*, *Cape Town*, *South Africa*), Moleko Samuel Mkehlane, Emmanuel Iwuoha

Electrochemical and Optical Effects of Chalcogenide Doping on Organo-metal Halide Perovskite

S19-012

**Stanley Normile** (*Mechanical Engineering, Tufts University, Medford, USA*), Alexy Serov, Dinesh C. Sabarirajan, Osvaldo Calzada, Xianghui Xiao, Pratiti Mandal, Dilworth Parkinson, Plamen Atanassov, Iryna V. Zenyuk

Visualization of water formation in polymer electrolyte fuel cells using in-operando X-ray computed tomography

S19-013

**Burak Ulgut** (*Chemistry, Bilkent University, Ankara, Turkey*), Elif Ozdemir, Can Berk Uzundal Impedance-Based, Zero-Free-Parameter Modeling of Energy Storage Systems

S19-014

**Bao Kou Xiong** (PCM2E, Université François Rabelais, Tours, France)

Measurement of gas generation in electrolytes for lithium-ion batteries

#### Electrochemical materials science

S19-015

**Vinicius Del Colle** (*Núcleo de Ciências Exatas, Universidade Federal de Alagoas, Arapiraca, Brazil*), Jannice Soares Lima França, Amaury Franklin Benvindo Barbosa, Germano Tremiliosi-Filho, Enrique Herrero, Juan M. Feliu

Electrochemical Study of Rhodium Electrodes Modified by Pt Submonolayer Towards Ethanol Electrooxidation

S19-016

Mikolaj Donten (Faculty of Chemistry, University of Warsaw, Warsaw, Poland)

Pulsed electrodeposition of Cu-W alloys

#### S19-017

**Omolola Fayemi** (*Chemistry, North-West University, Mafikeng, South Africa*), Ramaganthan Baskar, Lukmon Olasunkanmi, Oluyemi Alo, Abolanle Saheed Adekunle, Eno Ebenso

SPEEK/ZnO nanocomposite films for electrochemical detection of dopamine

#### S19-018

**Wei Han** (College of Material Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Zhuyao Li, Wenlong Li, Mei Li, Xiaoguang Yang

Electrochemical Extraction of La on Al and Cu Electrodes in LiCl-KCl Melts

#### S19-019

Satu Kristiina Heiskanen (Department of Chemistry, The University of Rhode Island, Kingston, USA), Brett Lucht Investigation of CO<sub>2</sub> Reduction Products in Lithium Ion Batteries

#### S19-020

**Atif Koca** (Chemical Engineering Department, Marmara University, Istanbul, Turkey)

Electrochemical Pesticide Sensors Based on Electropolymerized Metallophthalocyanines

#### S19-021

Ali Riza Ozkaya (Chemistry Department, Marmara University, Faculty of Science and Letters, Istanbul, Turkey), Efe Baturhan Orman, Zafer Odabas, Atif Koca

Electrochemical, Spectroelectrochemical, Electrocolorimetric, and Electrocatalytic Properties of Metal Phthalocyanine Compounds

#### S19-022

Ali Riza Ozkaya (Chemistry Department, Marmara University, Faculty of Science and Letters, Istanbul, Turkey), Duygu Akyuz, Turgut Keles, Zekeriya Biyiklioglu, Fatma K. Albayrak, Atif Koca

Electropolymerization of Metallophthalocyanines Carrying Redox Active Metal Centers: Electrochemical Pesticide Sensing Application

#### S19-023

**MinJae Sung** (*Chemical and Biological Engineering, Seoul National University, Seoul, Korea*), Hoe Chul Kim, Yu Seok Ham, Young Yoon, Taeho Lim, Jae Jeong Kim

Grain Size-Controlled filling of Through Silicon Via

#### S19-024

**Jianglong Yi** (Center of Weld Equipment and Technology, Guangdong Welding Institute, Guangzhou, China) Influence of Cu contents on electrochemical behavior of 600MPa grade HSLA steel FCAW weld metal

#### Electrochemical process engineering and technology

#### S19-025

**Tae Young Kim** (School of Chemical and Biological Engineering, Seoul National University, Seoul, Korea), Seunghoe Choe, Hoe Chul Kim, Yu Seok Ham

Effect of Electrolyte Acidity on the SPS Decomposition in Cu Electrodeposition

#### S19-026

**Myung Hyun Lee** (*Chemical and Biological Engineering, Seoul National University, Seoul, Korea*), Yu Seok Ham, Sung Ki Cho, Jae Jeong Kim

The influence of the synergistic inhibition between suppressor and halide ion for void-free filling in micro via filling

#### S19-027

**Kang Shi** (Department of Chemistry, Xiamen University, Xiamen, China), Zhong-Qun Tian, Xuan Zheng, Ping Zhou, Hui-Qing Hu, Liang-Liang Zhang, Cheng Wang, Jing-Fu Zhang, Dan Wu, Zhao-Wu Tian

New Nano-Machining Method of Electro-Regulated Chemical Etching with Distance Sensitivity

#### S19-028

Umran Un (Environmental Engineering, Anadolu University, Eskisehir, Turkey), Emre Oduncu Landfill Leachate Treatment by Electrooxidation Method Using Pt Coated Ti Anode

#### Molecular electrochemistry

S19-029

**Fethi Bedioui** (*UTCBS*, *Chimie ParisTech/CNRS*, *Paris*, *France*), Vincent Ching, Xia Wang, Menglan He, Noemi Perujo Holland, Régis Guillot, Cyrine Slim, Sophie Griveau, Helene Bertrand, Clotilde Policar, Marc Fontecave Rhenium Complexes Based on 2-Pyridyl-1,2,3-Triazole Ligands:a New Class of CO<sub>2</sub> Reduction Catalysts

#### Physical Electrochemistry

S19-030

**Jakub Drnec** (*Experimental Division*, *European Synchrotron Radiation Facility*, *Grenoble*, *France*), Finn Reikowski, Tim Wiegmann, Jochim Stettner, Veijo Honkimäki, Fouad Maroun, Olaf Magnussen

Transmission Surface Diffraction: a New Tool for in-Situ and Operando Surface Electrochemistry

S19-031

**Petr Krtil** (*Electrocatalysis*, *J. Heyrovsky Institute of Physical Chemistry*, *Prague*, *Czech Republic*), Roman Nebel, Katerina Minhová Macounová, Jan Rossmeisl, Ladislav Kavan

Surface Structure Role in Selectivity of Photo-electrochemical Water Splitting

S19-032

**Peng Li** (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China)

The law of change of equilibrium potentials of Lanthanide alloys and Alkaline-earth metal on Zn-coated electrode

S19-033

**Roberto Alexis Martínez Rodríguez** (*Chemical Physics, University of Puerto Rico; University of Alicante, Alicante, Spain*), Francisco José Vidal-Iglesias, José Sollá-Gullón, Carlos Cabrera, Juan M. Feliu

Electrochemical Study about the Effect of HCl and H<sub>2</sub>SO<sub>4</sub> as Surface Modifiers in the Synthesis of Platinum Nanocubes

S19-034

**Pu Wang** (College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin, China)

A new grading rule of equilibrium potentials of lanthanide alloys: implications for electrolysis based spent nuclear fuel pyroprocessing

#### Author Index

How to read the Author Index:

s08-017 (Thu s13)16:00

= Poster number = Oral presentation day, symposium, time

Abadie, Thomas, (Mon S02)17:20 Abbas, Qamar, (*Tue S07*)14:20 Abbott, Andrew P., (Mon S19)15:00 Abd-El-Latif, Abdelaziz, (Thu S05)17:20, S15-008 Abdellaoui, Sofiene, (Mon S04)17:40 Abditon, Maryam, S10-001 Abghoui, Younes, (Wed S15)09:50 Aboudzadeh, M. Ali, S05-006 Abraham, Daniel, S05-011, (Tue S05)10:10 Abruna, Hector, (Mon S18)14:00, (Thu *Plenary*)08:15 Aceta, Yara, (Thu S15)15:40 Achari, Innocent, (Thu S08)16:40 Acosta, Gustavo, (Mon S12)15:00, S12-012 Acuña-Bedoya, Jawer David, S12-030 Adachi, Tsubasa, S04-008 Adamiak, Wojciech, (Tue S09)17:40 Adams, Ethan, S06-010 Adekunle, Abolanle Saheed, \$19-003, S19-017 Adekunle, Ademola, (Tue S04)16:40 Adkins, Nick, \$11-016 Adzic, Radoslav, (Fri S08)11:10 Agapie, Theodor, (Thu S06)17:20 Agar, Ertan, (Thu S05)09:50, (Fri S05)11:30 Aghion, Stefano, (Tue S15)18:20 Agostiano, Angela, (Tue S11)10:10 Aguadero, Ainara, (Fri S06)09:50 Aguesse, Frédéric, (Tue S05)16:40 Aguilar, Claudio, (Fri S03)11:50 Aguilar, Zaira, S12-024 Aguilar-Cordero, Julio César, (Fri S11)11:10, S11-033 Aguilar-Eseiza, Noé, S05-009 Aguirre, Maria Jesús, (Tue S14)15:00 Ahmad, Yasser, (Mon S06)15:20 Ahn, Sang Hyun, S06-001, (Mon S15)09:30 Ahumada, G., S11-018 Aihara, Yuichi, (Fri S05)11:10 Aikawa, Tatsuo, S04-004 Ait-Yahiatene, Eric, (Tue S14)16:00 Ajayi, Babajide Patrick, (Fri S06)09:30 Ajayi, Rachel Fanelwa, (Mon S01)15:20 Akanmu, Sulaiman, (Tue S04)09:30 Akerele, Omolara, (Tue S04)09:30 Akolkar, Rohan, S18-001 Akyuz, Duygu, S19-022 Al-Kharafi, Faizah, S10-001 Al-Lolage, Firas, (Mon S04)15:20 Albayrak, Fatma K., S19-022 Albonetti, Cristiano, (Thu S03)17:40 Alecrim, Morgana, S02-005 Alemu, Tibebu, (*Thu S05*)10:10 Alfonso, Dominic, (Mon S16)14:40 Alfonta, Lital, (Mon S04)18:00 Alia, Shaun, (Fri S08)09:50 Alias, Yatimah, (Thu S11)09:30 Alibouri, Mehrdad, (Mon S19)14:20 Alizon, Guillaume, S06-035 Allahvarov, Elshad, (Wed S17)09:50 Allanore, Antoine, S09-002, (Mon S12)14:00 Allen, Stacy, (Tue S16)09:30 Allison, Thomas C., (Wed S15)10:10

Allongue, Philippe, (Tue S14)17:00, (Thu S08)15:00, S16-001 Almeida Silva, Tiago, S19-002 Alo, Oluvemi, \$19-017 Alshahrani, Aisha, (Mon S04)17:00 Alshehri, Reem, (Mon S04)17:00 Altomare, Marco, (Fri S08)11:50, S11-032 Alvarez-Malmagro, Julia, (Mon S15)18:20 Alvarez-Pugliese, Christian E., S12-002, S12-030 Amara, Samia, (Tue S07)15:20 Amatore, Christian, S03-015, S04-015, (Mon S02)17:20, (Thu S18)09:50, (Thu S17)18:00, S17-003 Ambrozik, Stephen, (Thu S08)16:40 Ameku, Wilson, (Mon S19)18:00 Amemiya, Shigeru, (Mon S01)15:40, (Wed S18)10:10 Amrane, Abdeltif, (Thu S13)17:20 Anand, Robbyn, (Mon S02)09:30 Anasori, Babak, (Tue S11)09:30 Anastacio, Fernanda, S11-029 Andersen, Nalin, S02-002 Anderson, Eric, (Thu S03)16:40 Anderson, Erik, (Tue S15)16:40 Anderson, Evan L., (Mon S18)16:00 Anderson, Morgan, (Mon S16)17:40 Anderson, Samantha, S10-011 André, Eilert, (Tue S15)18:20 Andreescu, Silvana, S03-012, (Thu S03)16:00, S12-025, S16-007 Andreev, Vladimir, S15-014 Andronescu, Corina, (Thu S04)14:40, (Thu S06)15:40 Ang, Caen, (Tue S10)14:00 Angelé, Léo, (Mon S16)18:00 Angnes, Lúcio, (Mon S19)18:00 Anithaa, A.C., S03-006 Anouti, Mérièm, (Tue S07)15:20 Ante, Mirko, (Fri S05)09:50 Antipov, Anatoly, (Fri S15)09:30, (Fri S15)09:50, S15-014, S15-016, Antloga, M., (Wed S07)09:50 Antolasic, Frank, (Thu S11)17:40 Antonello, Sabrina, (Mon S16)14:00 Aoki, Makoto, (Tue S06)16:00 Aoyama, Kiego, S09-002 Appetecchi, Giovanni B., (Tue S05)15:00 Aquilanti, Giuliana, (Fri S05)10:50 Aquino Neto, Sidney, S04-001, (Mon S04)15:00 Aragones, Albert, (Mon S19)17:00 Arai, Hajime, (Tue S05)16:40 Arai, Susumu, S05-028 Araujo, William, (Mon S19)18:00, S19-006 Arbault, Stéphane, (Mon S14)17:40 Arbizzani, Catia, S07-011, (Tue S05)16:00 Arcon, Iztok, (Fri S05)10:50 Ardizzone, Silvia, S11-034 Arefi Khonsari, Farzaneh, (Tue S04)17:00 Arenz, Matthias, (Mon S06)16:40, (Fri S06)11:10

Ariando, David, S01-011

Arisetty, Srikanth, (Fri S08)09:50

Ariyanto, Teguh, (Tue S11)18:00 Arjona, N., (Fri S06)11:30 Armel, Vanessa, (Fri S06)09:30 Armijo, Francisco, S11-039 Arnaboldi, Serena, (Tue S11)15:40, (Thu S13)15:20, S13-006 Arotiba, Omotayo, (Mon S01)09:50, S11-017, S11-037 Arriaga, L.G., (Fri S06)11:30 Arroyo-de-Dompablo, Maria Elena, (Tue S05)15:00 Artyushkova, Kateryna, S02-002, S04-017, S04-018, S06-016, (Wed S04)10:10, (Thu S06)14:20, (Thu S06)15:20 Asano, Yusuke, S04-007 Asbani, Bouchra, (Mon S07)17:20 Asen, Ludwig, S09-001, (Mon S09)15:20 Asokan, K., \$03-006 Assaud, Loïc, S11-028 Assegie, Addisu Alemayehu, (Tue S05)17:00 Asset, Tristan, (Mon S06)17:00, (Mon S06)17:40, (Mon S06)18:00, (Wed S15)10:10 Ataee-Esfahani, Hamed, (Tue S05)09:50, S11-024 Atanassov, Plamen, S02-002, S04-014, S04-017, S04-018, S06-016, (Mon S06)09:30, (Mon S07)10:10, (Tue S18)17:00, (Wed S04)10:10, (Thu S06)15:20, S19-012 Atta, Nada, (Tue S16)16:00 Aubert, Pierre-Henri, (Mon S01)15:20, (Mon S07)18:20 Audebert, Pierre, (Tue S14)17:00 Audibert, Jean-Frédéric, (Tue S14)17:00 Auer, Alexander A., (Thu S06)15:00 Auer, Andrea, (Tue S15)18:00, (Thu S11)17:20 Auvergniot, Jeremie, (Wed S05)09:30 Avila, Beatriz, (Tue S12)15:00 Ayache, Maurice, (Mon S05)10:10 Ayata, Sevda, S15-008 Aydogan Gokturk, Pinar, (Mon S15)10:10 Ayemoba, Onagie, (Tue S15)17:00 Ayers, Katherine, (Mon S06)09:30, (Tue S18)15:40, (Tue S06)17:00 Azder, Mehmet Akif, (Fri S06)11:30 Aziz, Md Abdul, *S10-002* Aziz, Michael J., (Tue S12)18:00 Aziz, Mohsin, (Mon S19)14:20 Azpeitia, Leticia, (Thu S11)14:40 Azuma, Nobuhiko, S05-017

Baddour-Hadjean, Rita, (Tue S05)15:20 Badhulika, Sushmee, (Mon S07)18:00 Bae, Je Hyun, *S16-002* Baek, Seol, S02-001 Bagger, Alexander, (Fri S06)11:10 Bai, Peng, (Thu S05)15:40 Baimyrza, Aigerim, (Tue S05)14:20 Bakenov, Zhumabay, S05-032, (Tue S05)14:20 Baker, Lane, (Mon S02)10:10, (Mon S18)18:20

Baker, Priscila, (Mon S01)15:20 Balaish, Moran, (Thu S05)15:20 Balasubramanian, Mahalingam, (Tue S05)17:40 Balboa, Luis, (Thu S08)16:00 Balci, Fadime Mert, S05-040 Baldhoff, Tobias, S02-008 Balke, Nina, (Mon S07)15:40 Baltruschat, Helmut, (Thu S12)14:00, (Thu S05)17:20, S15-008 Balva, Maxime, (Mon S09)18:20 Ban, Hee-Jung, *S11-006* Banda-Alemán, Jorge Alberto, (Fri S03)09:30 Bando, Yohe, S06-020 Banet, Philippe, (Mon S01)15:20, (Mon S07)18:20 Bang, Gyeong Sook, S06-025 Baranova, Elena, (Tue S12)15:20 Baranton, Stève, (Tue S06)14:40, S13-001 Barba, Silvia, S12-027 Barbosa, Aline, (Thu S03)10:10 Barbosa, Rui, S03-011 Barde, Fanny, (*Tue S05*)15:00 Barderas, Rodrigo, (Thu S03)17:00 Barek, Jiri, S02-003 Barkauskas, Jurgis, (Tue S07)18:00 Barnard, Peter, (Tue S14)15:40 Barolo, Claudia, (Mon S15)17:40 Barraza Burgos, Juan Manuel, S12-002 Barrès, Thomas, (Thu S17)17:00 Barros, Juliana B., S12-028 Bartlett, Philip, (Mon S19)14:20, (Mon S04)15:20 Bartolini, Luca, (Thu S03)17:40 Barwe, Stefan, (Thu S06)15:40 Baskar, Ramaganthan, S19-017 Baskin, Artem, S05-035 Bataillon, Christian, (Mon S10)14:00 Battaglia, Vincent, (Mon S05)16:40 Battistel, Alberto, (Tue S19)10:10, S19-004 Bavol, Dmytro, *S02-003* Bazant, Martin, (Mon S12)16:40, (Thu S05)15:40, (Thu S17)16:00, (Thu S17)16:40, (Thu S17)17:40, (Thu S06)17:40, S12-032, S17-004, S17-005 Beanland, Richard, (Mon S19)14:20 Bechtel, Hans, (Mon S05)10:10 Bedioui, Fethi, S02-007, (Mon S02)17:40, (Tue S02)10:10, S19-029 Bedoya Lora, Franky, (Mon S12)10:10 Beguin, Francois, (Tue S07)14:20 Beh, Eugene, (Tue S12)18:00 Behan, James A., (Thu S06)14:40 Behm, Rolf Juergen, (Thu S15)17:20 Behnken, Julian, (Thu S08)16:00 Behr, Michael, (Mon S05)17:40 Bekaert, Emilie, (Tue S05)16:40 Bélanger, Daniel, (Mon S09)09:30 Belenkaya, Irina, S05-020 Belin, Stéphanie, (Mon S07)14:00 Bell, John, (Mon S07)15:20 Bella, Federico, S05-006, S05-026, (Mon S15)17:40, (Tue S05)15:00, (Tue S05)17:20, S19-009 Bellagha-Chenchah, Wided, S03-015 Beller, Matthias, (Fri S13)11:30 Ben Ali, Mounir, (Mon S01)17:00

Ben Jrad, Amani, (Thu S11)09:50

Ben Messaoud, Najib, (Mon S01)17:00 Benchakar, Mohammed, (Tue S05)15:40 Bendersky, Leo, (Mon S15)09:30 Benedek, Roy, (Thu S05)17:00 Benincori, Tiziana, (Tue S11)15:40, (Thu S13)15:20, (Thu S04)15:20 Benn, Ellen, (Thu S08)09:30 Bennett, Brooke, (Tue S10)16:40 Benoit, Marie, (Mon S10)14:00 Berejnov, Viatcheslav, S06-039 Beresford-Laycock, Ann, (Mon S18)17:00 Berg, Erik J., (Mon S05)17:00, (Thu S05)14:20 Bergmann, Arno, (Thu S06)16:00 Bertheussen, Erlend, (Wed S15)09:50, (Thu S06)17:00, S15-010 Berthon-Fabry, Sandrine, (Mon S06)15:20 Bertotti, Mauro, (Mon S18)15:20. (Thu S03)10:10 Bertrand, Helene, S19-029 Bertrocci, Ugo, (Mon S15)09:30 Berziou, Cyril, S10-012 Bessler, Wolfgang G., (Tue S01)10:10, (Thu S05)09:30, S17-002 Betts, Anthony, S15-013 Bhardwaj, Kirti, (Tue S09)10:10 Bhargava, Suresh, (Thu S11)17:40 Bi, Hong, S07-006 Biamino, Sara, (Mon S10)18:20 Bianco, Giuseppe Valerio, (Tue S11)10:10 Biedermann, Ulrich, (Thu S15)15:20 Biener, Juergen, (Thu S08)10:10 Biesheuvel, Maarten, (Mon S12)18:00 Bigarré, Janick, (Tue S06)14:40 Bilewicz, Renata, S03-002, (Tue S19)09:50, (Tue S04)15:20, (Thu S03)15:40, (Thu S04)15:40 Billard, Isabelle, (Mon S12)14:20 Biller, Agnès, (Tue S07)15:20 Billing, Dave G., (Thu S15)14:40 Billy, Emmanuel, (Mon S09)18:20 Billy, Joshua, S16-004 BinSabt, Mohammad, S10-001 Birbilis, Nick, (Mon S10)17:20 Birdja, Yuvraj, (Tue S15)15:00, (Thu S13)15:40, (Fri S17)11:10, S15-007 Bisselink, Roel, S13-002, S13-003 Bist, Itti, (Tue \$16)10:10 Biswas, Indro, S05-036 Biyiklioglu, Zekeriya, S19-022 Bizzotto, Dan, S04-012, S04-019, (Mon S06)15:00, (Tue S15)09:30, (Tue S15)09:50, S15-009 Blackledge, Meghan, (Thu S03)16:40 Blanchard, Gary, (Tue S14)09:50, (Tue \$14)17:40, (Fri \$03)11:10, (Fri S03)12:10 Blanchard, Remi, (Tue S12)17:20 Blanga, Raymond, (Tue S05)15:20 Blasco-Ahicart, Marta, (Wed S06)09:50 Blawert, Carsten, (Tue S10)09:30 Blout, Achraf, (Tue S04)17:00 Bockelmann, Marina, (Tue S12)16:40 Bodin, Anders, (Thu S06)15:20, S15-010 Boettcher, Rene, (Mon S09)14:00 Bogolowski, Nicky, (Tue S05)14:40 Bohn, Paul, (*Tue S14*)14:00, (*Tue S01*)14:00, (Fri S11)09:50 Boika, Aliaksei, S01-001, (Tue S01)15:40 Boinet, Mickael, (Thu S17)17:00

Boisset, Aurelien, (Mon S07)18:20, (Tue S07)17:40 Bolli, Christoph, (Mon S05)17:00 Bollo, Soledad, (Mon S11)17:00 Bolzan, Agustin, (Thu S11)14:40 Bondue, Christoph, (Fri S13)10:10 Bonezzi, Jason, S01-001, (Tue S01)15:40 Bonnaud, Céline, (Mon S12)14:20 Bonnefont, Antoine, (Tue S15)14:00 (Thu S06)10:10, (Thu S11)14:00, S16-012 Booth, Marsilea A., (Tue S19)09:30 Bordet, Pierre, (Mon S06)17:00, (Mon S06)17:40, (Wed S15)10:10 Borowicz, Pawel, (Thu S04)15:20 Boswell, Alex, (Thu S06)14:00 Botte, Gerardine G., (Mon S18)15:00, (Tue S12)14:40 Botton, Gianluigi, (Wed S08)10:10 Boudiaf, Moussa, (Thu S11)14:00 Bouffier, Laurent, (Mon S14)17:40 Boukherroub, Rabah, (Wed S03)09:50 Boulahneche, Samia, (Wed S03)09:50 Boulanger, Pascal, (Tue S07)17:40 Bounoua, Hakim, (Tue S06)17:40 Boutelle, Martyn, (Mon S02)15:20, (Tue S19)09:30 Bouzek, Karel, S06-007, S06-031, (Tue S12)09:30, (Tue S06)18:20, (Thu S06)14:40, S12-009 Boye, Birame, (Thu S12)17:20 Bozdech, Sebastien, (Tue S15)14:00 Braatz, Richard D., (Thu S17)14:00 Braesch, Guillaume, (Thu S06)10:10 Brandão, Ana T.S.C., (Mon S09)15:00 Brandell, Daniel, (Thu S05)09:30 Brandiele, Riccardo, S16-005 Brankovic, Stanko, (Fri S08)10:10 Brasiliense, Vitor, (Mon S01)14:40, (Mon S16)18:00 Braun, Trevor, (Tue S18)16:00, (Wed S12)09:50, S12-001 Brennan, Emma, (Tue S01)16:40 Breslin, James, S07-003 Bresser, Dominic, (Mon S05)09:50 Brett, Christopher, (Mon S18)10:10, (Mon S01)17:00 Brett, Daniel, (Tue S15)14:40 Breugelmans, Tom, (Mon S02)09:50, (Mon S06)17:20, (Tue S16)14:00, S12-003 Briega-Martos, Valentín, (Thu S15)16:40 Brillas, Enric, (Thu S12)17:20, S12-017, S12-024 Briquet, Ludovic, (Fri S17)10:50 Brisset, François, (Mon S09)17:00 Brito, Juliana, (Mon S19)09:50 Brocenschi, Ricardo F., S16-002 Broese, Timo, (Thu S13)18:00 Bron, Michael, (Thu S06)14:40 Brousse, Thierry, (Mon S07)14:00, (Mon S07)17:20 Brown, Micah, (Thu S03)09:30 Brown, Zachary, (Fri S05)10:50 Browne, Michelle P., S06-003 Bruce, Peter, (Thu S05)14:00 Brueser, Volker, (Mon S06)16:40 Brun-Buisson, David, (Tue S15)17:00 Bruno, Giovanni, (Tue S11)10:10 Brushett, Fikile, (Thu S05)15:40 Bucher, Nicolas, S05-027 Büchi, Felix, (Tue \$06)16:00

Chen, Lifen, (Tue S14)15:20 Buess-Herman, Claudine, S09-005, Cao, Zhenming, (*Thu S06*)09:30 (Tue S09)09:50 Cao, Ziyang, (Mon S05)15:20 Buffa, Andrea, (Tue S02)09:30 Cappillino, Patrick, (Thu S05)09:50, Bufon, Carlos C.B., (Thu S11)10:10 (Fri S05)11:30 Buhlmann, Philippe, (Mon S18)16:00, Capuano, Christopher, (Mon S06)09:30 (Tue S01)09:50 Cardoso, Juliano, (Mon S19)09:50 Buie, Cullen, (Thu S06)17:40 Carlà, Francesco, (Mon S15)16:00 Buller, Saskia, (Fri S11)09:30 Carleschi, Emanuela, (Thu S15)14:40 Bund, Andreas, (Mon S09)14:00, Carneiro de Siqueira Leite, Karla, S01-016 (Mon S09)15:20, (Tue S09)15:00, Carrillo, D., S11-018 (Fri S05)09:50 Carter, Emily, (*Fri S17*)09:30 Casanova-Moreno, Jannu, S15-009 Burbano, Mario, (Tue S15)15:00 Burgess, Mark, (Mon S11)18:00, Cassel, Alice, (Wed S05)09:30 (Tue S11)14:00 Cassidy, John, (Tue S01)16:40, S15-013 Burheim, Odne, (Tue S06)15:40 Castaneda, Homero, (Mon S10)15:20, Chen, Ye, S07-009 Buriez, Olivier, (Tue S14)16:00 (Tue S01)14:20 Burns, James, (Tue S18)17:40 Castaneda Ulloa, Locksley, S12-013 Chen, Yu, S11-035 Castro, Fernando, (Thu S05)17:00 Busch, Michael, (Thu S06)17:20 Buso-Rogero, Carlos, (Tue S15)15:40 Castro, Jorge, S13-007 Buss, Marjorie, S12-033 Cattarin, Sandro, (Mon S11)16:40, Bustos, Erika, (Mon S12)15:00, (Wed S11)09:30 (Fri S03)09:30, S12-010, S12-012 Caussé, Nicolas, (Mon S10)17:40 (Fri S11)09:30 Butler, S.M., (Wed S07)09:50 Causserand, Christel, (Thu S12)14:40, Buvat, Pierrick, (Tue S06)14:40 (Thu S12)16:00 Buzzeo, Marisa, (Mon S04)10:10, Cauteruccio, Silvia, (Thu S13)15:20 (Tue S18)14:00 Cavalca, Filippo, (Tue S15)18:20 S11-003 Bystron, Tomas, (Tue S12)09:30, Cavalheiro, Eder T. G., S19-001 (Tue S06)18:20, S12-009 Cavaliere, Sara, (Wed S06)09:50 Byun, Jinuk, *S06-001* Ceccaldi, Pierre, (Mon S04)14:00 Celorrio, Veronica, (Fri S06)09:50 C Cevallos-Morillo, Carlos, S11-033 Cabrera, Carlos, (Mon S09)18:00, (Thu S04)10:10 Cha, Wonsuk, (Thu S08)15:40 (Thu S03)17:20, S19-033 Chabrol, Claude, (Tue S15)17:00 Cabrini, Marina, (Mon S10)18:20 Chae, Seulki, S11-015 Cadiou, Vincent, (Fri S05)12:10 Chagas, Andréia S., (Thu S11)10:10 (Tue S01)14:20 Cai, Jingju, *S12-018* Chai, Dagan, S11-038 Cai, Rong, (Mon S04)17:40 Chainet, Eric, (Mon S12)14:20 Cai, Wen-Bin, (*Thu S15*)14:00 Challier, Lylian, (Tue S14)16:00 Cairns, Elton, (Thu S05)09:50 Chamier, Jessica, (Mon S06)18:20 Calabrese Barton, Scott, (Mon S04)09:50, Chan, Karen, (Fri S17)11:30 (Wed S18)09:50 Chanda, Debabrata, (Tue S06)18:20 Calas-Blanchard, Carole, (Thu S11)09:50 Chang, Zhihua, S01-003 Caldeira, Vincent, (Fri S12)09:30 Charkhkar, H., S03-009 Calignano, Flaviana, (Mon S10)18:20 Charon, Emeline, (Mon S07)17:40 Calle-Vallejo, Federico, (Fri S17)10:50 Chatenet, Marian, S06-002, (Mon S06)15:20, Calvillo, Laura, (Tue S15)14:40 (Tue S12)17:20, (Thu S06)10:10, Calvo, Ernesto Julio, (Tue S15)14:40, (Fri S12)09:30 (Fri S05)10:10 Chattot, Raphael, (Mon S06)17:00, Calzada, Osvaldo, S19-012 (Mon S06)17:40, (Mon S06)18:00, Camargo, Pedro, (Tue S16)15:00 (Wed S15)10:10 Campbell, Richard A., (Tue S04)15:20 Che, Canvan, S06-026 Campen, R. Kramer, (Tue S15)14:40, Che, Haiying, S06-014 S14-001 Chen, Aicheng, S03-004, (Tue S12)15:40 Campuzano, Susana, (Tue S01)17:00, Chen, Cheng-Hui, S01-015 (Thu S03)17:00 Chen, Chia-Chern, S01-015 Canas, Natalia Andrea, S05-036 Chen, Chia-Chin, (Thu S05)16:00 Candia, Christian, S01-009 Chen, Chih-Hao, S03-010 Chu, Eileen, S05-027 Cañizares, Pablo, (Mon S12)18:20, Chen, Chih-Yao, S05-002, (Tue S09)15:20 (Thu S12)15:40, S12-020, S12-027 Chen, Chusheng, (Fri S06)11:30 Cannes, Celine, (Mon S09)17:00 Chen, Dan, S12-014 Cano, Irene Garcia, S12-017 Chen, De Xin, S12-033 Cantarele, Rijkaard F., S12-028 Chen, Dejun, (*Tue S05*)09:50, Canteras, Newton, (Thu S03)10:10 (Wed S15)10:10, S11-024 Cao, Dianxue, S06-030, S06-033, Chen, Guangyu, (Fri S08)11:10 (Thu S04)09:30 (Fri S11)09:30 Chen, Hong-Yuan, S01-007 Cao, Huazhen, S06-036, S11-035, S11-038 Chen, Hung-Ming, (Thu S11)15:20 Cao, Lei, (Tue S01)14:40 Chen, Jingyi, (Fri S08)10:50 (Tue S11)15:20 Cao, Minghui, (Thu S11)16:40 Chen, Lee Chuin, S01-013 Cao, Shuo-Hui, S15-011 Chen, Li, (Fri S15)11:30

Chen, Liang, S15-001

Cao, Yu, S05-034

Chen, Lin-Chi, S01-014, S03-010 Chen, Miao, (Thu S11)17:40 Chen, Ming-Shu, S15-006 Chen, Qing, (Wed S08)09:30 Chen, Shaowei, (Mon S16)09:30 Chen, Shuai, (Tue S12)15:40 Chen, Tianyu, S01-013 Chen, Tsung-Hung, S11-002 Chen, Wei, (Mon S16)15:00, S11-025 Chen, Wei-Ting, (Thu S11)14:40 Chen, Xue-Jiao, (Tue S14)17:20 Chen, Yan, (Tue S10)09:30 Chen, Yan-Shi, (Tue S07)17:20 Chen, Yen-Ming, (Thu S05)17:40 Cheng, Hsui-Wei, (Fri S15)10:10 Cheng, Ju-Hsiang, (Tue S05)17:00 Cheng, Jun, (Fri S17)10:10, (Fri S15)10:50 Cheng, Kui, S06-030, S06-033, S07-009, Cheng, Lei, (Tue S05)17:40 Chennard, Etienne, (Mon S11)18:00 Cheong, Hae-Won, S05-037, S05-039, Cherevko, Serhiy, (Tue S06)18:00 Chhin, Danny, (*Thu S11*)17:00 Chiba, Kazuhiro, (Thu S13)14:40 Ching, Vincent, S19-029 Chiorcea-Paquim, Ana-Maria, Chisaka, Mitsuharu, (Thu S06)14:20 Chiu, Tse-Ming, (Mon S10)15:20, Chmielowiec, Brian, S09-002 Cho, Eunseog, (Wed S15)09:30 Cho, Jang-Hyeon, S05-037 Cho, Jung Hwi, (Fri S05)09:30 Cho, Seongkoo, (Tue S01)14:20 Cho, Sung Ki, S19-026 Cho, Taehoon, S16-003 Cho, Woosuk, S05-003 Choe, Seunghoe, S19-025 Choi, Byungjin, (Wed S15)09:30 Choi, Heewon, S16-004 Choi, Hyeonji, S06-027 Choi, Sungjun, (Fri S06)12:10 Choi, Sylvia, (Mon S04)18:20 Choi, Woojun, (Mon S16)17:20 Chorkendorff, Ib. (Wed S15)09:50. (Thu S06)15:20, (Thu S06)17:00, S15-010 Chou, Keng C., (*Tue S15*)09:30 Chou, Li-Hsien, (Wed S09)09:30 Choudhary, Dharamainder, (Fri S03)11:30 Christenson, Gary, (Mon S18)16:00 Chu, Sterling, (Thu S15)17:00 Chu, Yong, (Tue S10)15:00 Chuang, Yu-Lun, S11-004 Chudy, Michal, (Thu S03)15:40 Chung, Kyung Yoon, S05-022, S05-023 Chung, Taek Dong, S02-001, Ciaccafava, Alexandre, S04-003 Ciampi, Simone, (Mon S19)17:00, Cichowicz, Grzegorz, (Tue S14)09:50 Cieplak, Maciej, (Thu S04)15:20

Ciger, Jan, (Wed S18)09:30

INDEX

Cihangir, Salih, (Mon S19)15:00 Cimenti, Max, S06-039 Cinar, Nergis, (Thu S03)14:20 Clancy, Tomás, (Thu S05)15:40 Clark, Simon, (Thu S05)17:00 Clesi, Maria, (Mon S10)10:10 Cliffel, David, S02-009, (Mon S16)17:00, (Tue S18)15:00 Co, Anne, (Tue S01)14:40, (Tue S01)15:20, (Fri S06)10:50, S16-004 Coban, Dilek, *S15-008* Coetsier, Clemence, (Thu S12)14:40, (Thu S12)16:00 Cohen, Elazar, (Tue S05)15:20 Cohendoz, Stephane, S10-012 Cohin, Yann, (Thu S17)17:00 Colavita, Paula E., S06-003, (Thu S06)14:40 Coleman, Eric, (Tue S01)15:20, S16-004 Colò, Francesca, S05-026, (Tue S05)15:00 Colombo, Rafael, (Wed S11)09:50 Colón-Rodríguez, Sonivette, S01-002 Coltro, Wendell, (Mon S02)17:40 Comas-Cabrales, Jovannis A., S12-002 Combellas, Catherine, (Mon S16)18:00 Come, Jeremy, (*Mon S07*)15:40 Comisso, Nicola, (Mon S11)16:40, (Wed S11)09:30 Comparelli, Roberto, (Tue S11)10:10 Conforti, Kameron, (Mon S12)16:40 Cong, Hongbo, (Mon S10)17:20 Conti, Giamaica, (Mon S14)15:20 Conzuelo, Felipe, (Thu S03)14:20 Coote, Michelle, (Mon S19)17:00 Corceiro, Vanessa N., (Thu S12)16:40 Cordeiro, M. Natália D.S., S09-004 Corden, Natalie, (Mon S18)17:00 Cordoba de Torresi, Susana, (Mon S18)15:20, (Tue S16)15:00, (Wed S11)09:50, S11-001 Correa-Baena, Juan Pablo, S07-011, S19-009 Cosi, Filippo, (Tue S15)14:00 Cossar, Emily, (Tue S12)15:20 Costa Bassetto, Victor, (Thu S06)15:40 Costa Figueiredo, Marta, (Fri S13)10:10 Costa, Remi, (Fri S06)11:10 Costa, Renata, S09-004 Coulston, Jodie, (Mon S18)17:00 Coustan, Laura, (Mon S09)09:30 Coutanceau, Christophe, (Tue S06)14:40, S13-001 Crawford, Jessica, (Mon S19)17:40 Cretin, Marc, (Thu S12)16:00 Creus, Juan, S10-012, (Tue S10)18:20 Criado, Alejandro, (Mon S14)15:20 Crisostomo, David, (Mon S16)17:00 Crockatt, Marc, S13-003 Crooks, Richard, (Mon S16)17:40 Crosnier, Olivier, (Mon S07)14:00 Crouch, Garrison, (Tue S14)14:00, (Tue S01)14:00 Croy, Jason, (Thu S05)17:00 Crumlin, Ethan J., S05-035, (Mon S10)15:40 Cruz Gómez, Modesto Javier, S12-023 Cruz, Roel, S12-026 Cuenya, Beatriz Roldan, (Thu S06)17:00 Cuesta, Angel, (*Tue S15*)17:00, (Thu S15)17:40, (Fri S17)10:10 Cui, Chen, S14-002 Cui, Hua, (Mon S14)18:20 Cummings, Peter, (Mon S15)14:40

Cunci, Lisandro, (Thu S03)17:20 Curri, Maria Lucia, (Tue S11)10:10 Curtis, Sarah, *S12-033* Cyranski, M., (Tue S14)09:50 Czekajc, Izabela, (Tue S05)18:20 d'Orlyé, Fanny, (Mon S02)17:40, (Tue S02)10:10 D'Souza, Francis, (Thu S04)15:20 da Silva, Arua, S11-001 da Silva, Gabrielle, (Wed S11)09:50 da Silva Júnior, Eufranio, (Tue S14)16:40 Da Silva, Rodrigo, (Mon S04)15:00 Dabrowski, Marcin, (Thu S04)15:20 Dag, Omer, S05-040 Dahbi, Mouad, (Fri S05)11:50 Dainese, Tiziano, (Mon S16)14:00 Daletou, Maria, (Mon S06)14:40 Dalgliesh, Robert, (Mon S15)14:00 Damas, Christine, (Tue S05)15:40 Damian, Alexis, (Thu S08)15:00 Damlin, Pia, (Thu S11)10:10 Damsgaard, Christian, (Thu S06)15:20 Daniel, Claus, S05-004, (Mon S05)09:30 Daniel, Giorgia, (Fri S06)09:50 Daniel, Lise, (Tue S15)17:00 Danilov, Dmitri, (Thu S17)09:30 Darchy, Léa, (Mon S07)18:20 Darwish, Nadim, (Mon S19)17:00 Datye, Abhaya, (Mon S18)15:40 David-Parra, Diego N., S11-029, S19-001 De Andrade, Adalgisa, S04-001, (Mon S04)15:00 De Andrade, Vincent, (Fri S05)11:10 de Freitas Araújo, Karla Caroline, S12-022 de Groot, Kees, (Mon S19)14:20 De Lacey, Antonio L., (Mon S04)17:40 De Malsche, Wim, S12-003 de Oliveira, Marcelo, (Mon S01)18:00 de Paiva Barreto, Jéssica P., S12-022 de Poulpiquet, Anne, (Mon S14)17:40 Debinski, Aleksander, (*Tue S19*)09:50 Deconinck, Johan, (Thu S17)15:40 Dedryvere, Remi, (Wed S05)09:30 Deiss, Frederique, (Mon S14)16:00, (Fri S03)10:50 Dejmkova, Hana, S02-003 Del Colle, Vinicius, S19-015 del Valle, M. Angelica, S11-018, S11-039 Delacotte, Jérôme, (Tue S14)16:00 Delerue-Matos, Cristina, (Mon S04)15:40 Demirkaya, Zulal Beyza, S10-008 Demortiere, Arnaud, (Fri S05)11:10 Deng, Fengxia, (Thu S12)10:10 Deng, Kaichao, (Tue S15)14:00 Deng, Xin, (Mon S15)17:20 Dennis, Allison, (Thu S04)17:20 Descarpentries, Jérémie, (Mon S07)18:20, (Tue S07)17:40 Deschamps, Michael, (Tue S07)15:40 Desgranges, Cédric, (Tue S07)17:40 Desprez, Philippe, (Thu S17)14:40 Destro, Matteo, (Tue S05)17:20 Deunf, Elise, (Fri S05)12:10 Dharmaratne, Asantha, (Thu S04)16:00 Di Franco, Francesco, (Mon S10)10:10, S11-023 Di Noto, Vito, (Thu S15)14:20 Di Quarto, Francesco, (Mon S10)10:10, (Tue S11)17:00, S11-023

Diao, Fangyuan, (Fri S08)12:10 Dias, Daiane, (Mon S01)17:40 Diascro, Angela, (Thu S06)17:20 Diaz, Diana Coral, (Thu S03)17:20 Diaz, Fernando, S11-039 Diaz Gaxiola, Andrea, (Tue S15)09:50 Diaz Morales, Oscar, (Tue S15)18:20 Dibden, James, (Tue S05)17:20 Dick, Deborah, (Tue S10)17:20 Dick, Luis Frederico, (Tue S10)17:20 Diez-Buitrago, Beatriz, (Mon S14)17:40 Diez-Pérez, Ismael, (Mon S19)17:00, (Thu S13)14:00 Dilip Jangam, John, (Thu S11)09:30 Ding, Changsheng, (Tue S09)14:00 Ding, Ding, S15-006 Ding, Dong, (Mon S12)15:40 Ding, Yi, (Fri S08)09:30 Ding, Zhifeng, (Tue S14)10:10 Dionigi, Fabio, S06-005, S06-028, (Tue S15)16:40, (Thu S06)16:00, (Thu S06)16:40 Dittmer, Adam, (Tue S01)09:50 Dizon, Arthur, (Tue S12)09:50 Doan, Huong, (Mon S06)09:30 Doeven, Egan, (Tue S14)15:20 Doherty, Andrew, (Mon S09)10:10 Doi, Takayuki, (Mon S05)15:20 Dolinska, Joanna, (Mon S11)09:50, S16-009 Dominguez, Carlota, S06-003, (Thu S06)14:40 Dominko, Robert, (Fri S05)10:50 Doneux, Thomas, S04-019, S09-005, (Tue S09)09:50 Dong, Hongxu, (Fri S11)12:10 Dong, Jin-Chao, (Mon S15)18:00, (Thu S15)15:40 Dong, Zhigang, S10-006 Dongmo, Saustin, (Tue S09)17:40 Donten, Mikolaj, S19-016 Dordi, Yezdi, (Fri S08)10:10 dos Santos, Alexsandro J., (Thu S12)15:00 dos Santos Sardinha, Eduardo, (Tue S05)18:00 dos Santos, Wallans, S02-005, S02-006, (Mon S01)17:20 Dosta, Sergi, S12-017 Dou, Maofeng, *S15-015* Douard, Camille, (Mon S07)14:00, (Mon S07)17:20 Downard, Alison, S16-008 Doyle, Bryan, (Thu S15)14:40 Doyle, Peter, (*Tue S10*)14:00 Drakselová, Monika, S06-007 Dravid, Vinayak, (Thu S05)17:00 Dreizas, Gintaras, (Tue S04)15:40 Dresp, Soeren, (Thu S06)16:40 Dridi, Chérif, (Mon S01)17:00 Drillet, Jean-Francois, (Tue S05)14:40 Drnec, Jakub, (Mon S06)15:00, (Mon S15)16:00, (Mon S06)17:00, (Mon S06)17:40, (Wed S15)10:10, (Thu S06)16:00, S19-030 Dru, Delphine, (Tue S06)14:40 Drvaric Talian, Sara, (Fri S05)10:50 Du, Zhijia, S05-004, (Mon S05)09:30 Duan, Jizhou, (*Tue S10*)17:00 Duan, Yonghua, S05-041 Duarte, José, (Tue S10)14:20, S12-015 Duarte, Gerson Junior, (Mon S02)17:40

Dubale, Amare Aregahegn, (Thu S11)15:20 Dubau, Laetitia, S06-002, (Mon S06)17:00, (Mon S06)17:40, (Mon S06)18:00, (Wed S15)10:10, (Fri S12)09:30 Duca, Matteo, (Mon S15)14:20 Dudney, Nancy, (Tue S05)17:40 Duh, Jenq-Gong, (Thu S05)16:40 Dumas, T., S03-009 Dumitrascu, Adina, S05-007 Dumitrescu, Eduard, S03-012, (Thu S03)16:00 Dunn, Bruce, (Mon S07)16:40 Durán Moreno, Alfonso, S12-023 Durand, Mathieu, (Mon S01)15:20 Durante, Christian, (Fri S06)09:50, S16-005 Durovič, Martin, S06-007 Dutta, Monica, (Thu S06)14:00 Ebenso, Eno, S19-003, S19-017 Ebrahimi, Nafiseh, S10-011 Ecker, Lynne, (Tue \$10)15:00 Economou, Anastasios, S02-003 Edstrom, Kristina, (Tue S05)14:00 Eichel, Rüdiger-A., (Thu S05)15:00 Eichhorn, Bryan W., S05-035 Eikerling, Michael, (Fri S17)12:10 Eiler, John M., (Thu S06)17:20 Ein-Eli, Yair, (Thu S05)15:20 Einaga, Yasuaki, (Mon S11)14:00, (Mon S11)18:20, (Tue S11)15:00, (Tue S11)16:40, S15-015 Ejikeme, Paul, (Thu S06)09:50 El Kazzi, Mario, (Tue S05)18:20, (Thu S05)14:20 El Khatib, Muammar, (Thu S17)18:20, (Fri S17)09:50 El Rhazi, Mamia, (Thu S11)16:00 El-Ads, Ekram, (Tue S16)16:00 El-Zoka, Ayman, (Wed S08)10:10 Elango, Rakesh, (Fri S05)11:10 Elbert, Johannes, (Tue S11)18:20, (Fri S11)12:10 Elliott, Sean, (Mon S04)14:00 Elsøe, Katrine, (Wed S06)09:30

Elbert, Johannes, (Tue S11)18:20, (Fri S11)12:10
Elliott, Sean, (Mon S04)14:00
Elsøe, Katrine, (Wed S06)09:30
Elwany, Alaa, (Mon S10)15:20
Emery, Flavio, (Tue S14)16:40
Emery, Nicolas, (Tue S05)15:20
Enache, Teodor Adrian, (Thu S04)10:10
Endo, Haruka, (Mon S19)09:30
Endrikat, Anna, (Mon S09)14:00, (Mon S09)15:20
Endrodi, Balázs, S11-036
Engemann, Thomas, (Mon S09)14:00,

(Mon S09)15:20 Engstfeld, Albert K., (Thu S06)17:00 Erasmus, Rudolph, (Thu S15)14:40

Erasmus, Rudolph, (Thu S15)14:40 Erbe, Andreas, (Thu S15)15:20 Erel, Yigal, (Tue S02)09:30 Erikson, Heiki, (Mon S19)10:10,

Erinmwingbovo, Collins, (*Tue S19*)10:10 Erlebacher, Jonah, (*Thu S08*)09:30 Escalera López, Daniel, S06,004

Escalera López, Daniel, *S06-004*, (*Tue S16*)17:00

(Fri S06)10:10

Eslamibidgoli, Mohammad Javad, (Fri S17)12:10

Esmilaire, Roseline, (*Thu S12*)16:00 Espinoza Cisternas, Lidia Carolina, *S12-016* Essmann, Vera, (*Mon S14*)10:10 Esteban-Tejeda, Leticia, S06-003 Etzold, Bastian J.M., S02-010, (Tue S11)18:00, S12-006 Eurich, Svitlana, (Thu S05)15:00 Eustache, Etienne, (Mon S07)17:20 Evers, Mathies, (Fri S11)11:30 Ewoldt, Randy, S05-034 Eychmüller, Alexander, (Tue S06)09:30

#### F

Fajardo, Ana S., (Thu S12)16:40 Falciola, Luigi, (Tue S11)10:10, S11-034 Falco, Marisa, (Mon S15)17:40, (Tue S05)15:00 Fan, Louzhen, (Tue S14)14:40 Fan, Ping, S11-007 Fandrich, Artur, S04-013 Fang, Zhenbin, S07-006 Fang, Zhong, (*Tue S10*)10:10 Fanjul Bolado, Pablo, S01-010, (Tue S01)18:00 Farandos, Nick, (Fri S06)10:50 Farquhar, Anna, S16-008 Farrell, Drew, (Mon S02)15:00 Fatibello-Filho, Orlando, (Mon S01)17:40, S19-002 Fattakova-Rohlfing, Dina, (Wed S04)09:50 Fava, Elson L., (Mon S01)17:40

Fava, Elson L., (Mon S01)17:40
Favaro, Marco, (Mon S10)15:40
Favier, Frédéric, (Mon S07)14:00
Fayemi, Omolola, S19-003, S19-017
Feaugas, Xavier, S10-012
Feihl, Sebastian, S05-005, (Fri S05)09:50
Felici, Roberto, (Mon S15)16:00
Feliu, Juan M., (Tue S15)15:40, (Thu S15)16:40, S19-015, S19-033
Fermin, David, (Fri S06)09:50
Fernandes de Alecrim, Morgana, (Mon S01)17:20

Fernandes Guimarães, Freddy, S01-016, (Mon S01)17:20

Fernandez, Dennys, (Mon S12)17:00 Fernández, Francisco, S13-007, S13-008 Fernandez Macia, Lucia, (Mon S10)18:00, (Thu S17)15:40

Fernández, Pablo, S06-019 Fernandez, Renny, (Fri S11)10:50 Ferragut, Rafael, (Tue S15)18:20 Ferrara, Chiara, S05-029

Ferre-Vilaplana, Adolfo, (*Tue S15*)15:40 Ferreira de Araújo, Jorge, *S06-005*, (*Tue S15*)16:40

Ferreira de Carvalho, Murilo, S01-016 Ferreira Garcia, Luane, (Mon S01)17:20 Ferreira, Virginia, (Mon S15)14:00 Ferro, Alice, S12-015

Fic, Krzysztof, S07-004, S07-008, (Tue S07)09:30, (Tue S07)15:00

Figueiredo, Marta, (Tue S15)17:40 Fino, Paolo, (Mon S10)18:20

Fiordaliso, Elisabetta Maria, (*Thu S06*)15:20 Fisher, Elizabeth, *S15-009* 

Fitch, Alanah, (Mon S04)17:00, (Tue S18)14:40

Flechsig, Gerd-Uwe, S01-002, S01-003, S04-010, (Thu S04)17:40

Fleury, Xavier, (Tue S15)17:00 Fleutot, Benoit, (Thu S05)14:20 Flexer, Victoria, (Fri S05)10:10

Floner, Didier, (*Thu S13*)17:20

Flor, Jáder, (Mon S19)09:50 Flores-Cadengo, Cristina, S04-014 Foix, Dominique, (Wed S05)09:30 Foltran, Enrico, (Fri S06)09:50 Fonda, Emiliano, S06-035, (Fri S06)09:30 Fontanesi, Claudio, (Tue S11)14:40 Fontecave, Marc, S19-029 Fontmorin, Jean-Marie, (Thu S13)17:20 Forster, Robert, (Mon S14)16:40 Forsyth, Heidi, S03-004 Fortes, Jesus, (*Tue S10*)14:20 Fortuin, Adrian, (Thu S15)14:40 Fourcade, Florence, (Thu S13)17:20 Fournier, Thierry, S02-007 Fracassi da Silva, Alberto, (Mon S02)17:40 Fracasso, Giulio, (Mon S14)15:20 Frackowiak, Elzbieta, S07-004, S07-008, (Tue S07)09:30, (Tue S07)15:00 Francesco, Sannicolò, S13-006 Francis, Paul, (Tue S14)15:20 Francke, Robert, (Thu S13)15:00,

(Thu S13)18:20, (Fri S13)11:30 Franco, Alejandro A., (Wed S18)09:30, (Thu S05)14:20, (Thu S17)14:40 Franklin Benvindo Barbosa, Amaury, S19-015

Frasson, Carolina, (Mon S19)18:00 Freitas, Inês F., (Thu S12)16:40 Frelon, Agathe, (Tue S06)14:40 Frem, Regina, (Mon S19)09:50 Freudenberger, Renate, (Fri S05)09:50 Friedrich, Kaspar Andreas, S05-036, (Thu S05)17:40

Friedrich, Thorsten, (Mon S04)18:20
Fritsch, Ingrid, (Mon S02)16:00,
(Mon S02)18:00, (Tue S18)14:20
Frkonja-Kuczin, Ariana, (Tue S01)15:40
Fröba, Steffen, S05-005, (Fri S05)09:50
Frommer, Kathleen, (Mon S04)10:10
Frontera, Carles, (Tue S05)15:00
Fu, Gang, (Thu S06)09:30
Fu, Kaiyu, (Tue S14)14:00, (Tue S01)14:00,

Fu, Kaiyu, (*Tue S14*)14:00, (*Tue S01*)14:00, (*Fri S11*)09:50

Fu, Kang, S06-006, S06-013, (Mon S06)09:50 Fu, Lijun, (Thu S05)16:00

Fu, Yanbao, (Mon S05)16:40

Fuentes Pamírez Poselbo (M

Fuentes-Ramírez, Rosalba, (Mon S12)17:40, S12-010

Fujimura, Tatsuki, S09-002 Fujishima, Akira, S03-005, (Tue S16)15:40, (Thu S12)17:00

Fukami, Kazuhiro, S01-013, (Wed S09)09:50 Fukumuro, Naoki, (Mon S19)14:40 Fukunaga, Atsushi, S05-024, (Tue S09)14:00 Fukunaka, Yasuhiro, (Tue S05)09:30, (Thu S05)16:40

Funabashi, Hiroto, S04-002

#### G

Gagotsi, Yuri, (Mon S15)14:40
Gaidukevic, Justina, (Tue S07)18:00
Galagan, James, (Thu S04)17:20
Galagedera, Sarasi, S01-003, S04-010, (Thu S04)17:40
Galal, Ahmed, S10-001, (Tue S16)16:00
Galan-Mascaros, Jose-Ramon, (Wed S06)09:50
Galiano, Hervé, (Tue S07)15:20
Gallagher, Kevin, (Tue S05)17:40

INDEX

Gallego, F. Javier, (Tue S01)17:00 Galliano, Simone, (Mon S15)17:40 Gan, Linfeng, (Thu S05)14:00 Gao, Fan, (Fri S11)11:10, S11-021 Gao, Han, (Tue S07)16:40 Gao, Huajian, S05-038 Gao, Lu, (Thu S17)09:30 Gao, Ming, (Thu S03)15:00 Gao, Qiang, (Mon S07)15:40 Gao, Xiaohui, (Mon S16)15:00 Garbarino, Sebastien, (Mon S15)14:20 Garcia, Amanda Cristina, (Tue S15)15:00 Garcia, Camilo, (Tue S14)15:00 Garcia Lastra, Juan Maria, (Thu S15)16:00 García, Orlando, (Mon S12)17:00 Garcia Rodriguez, Orlando, (Thu S12)14:20 Garcia-Araez, Nuria, (Tue S05)17:20 Garcia-Cruz, Leticia, (Tue S12)15:00 Garcia-Lugo, Florencio, S12-023 García-Meza, J. Viridiana, S04-016 Garcia-Rodriguez, Orlando, (Thu S12)09:50 Garcia-Segura, Sergi, (Thu S12)14:00, S12-017, S12-019 Garsany, Yannick, (Mon S06)14:00 Garzon, Fernando, (Mon S18)15:40 Gasteiger, Hubert A., (Fri S06)10:10 Gath, Kerrie, S06-014 Gaya, Caroline, (Thu S05)14:20 Gayman, Gary, (Mon S05)15:40 Ge, Mingyuan, (Tue S10)15:00 Geagea, Roland, (Mon S01)15:20 Geboes, Bart, (Mon S06)17:20 Geh, Si Rong, (Thu S12)10:10 Geiger, Simon, (*Tue S06*)18:00 Gelinas, Bruno, (Tue S07)14:00, S11-020 Geneste, Florence, (Thu S13)17:20 Geng, Ke, (Wed S08)09:30 Geng, Lan, (Mon S12)15:20 Genies, Sylvie, (Tue S15)17:00 Gennaro, Armando, (Fri S06)09:50, S13-006, S16-005 Gennis, Robert B., (Mon S04)18:20 Genovese, Matthew, (Tue S07)16:40 Gentle, Isaac, (Mon S12)10:10 George, Michael, S12-006 Georgescu, Nicholas, (Thu S18)09:30 Gerbaldi, Claudio, S05-006, S05-026, (Mon S15)17:40, (Tue S05)15:00, (Tue S05)17:20, S19-009 Gerbasi, Rosalba, (Mon S11)16:40 Gerhardt, Greg. S03-011 Gervasi, Claudio, (Thu S11)14:40 Gewirth, Andrew, (Thu S06)17:20 Ghamouss, Fouad, (Mon S07)17:40 Ghanbaja, Jaafar, (Tue S09)09:30 Ghica, Mariana Emilia, (Mon S01)17:00 Gholipour, Somayeh, S07-011 Ghosh, S. K., (Mon S19)16:00 Ghoshal, Shraboni, S06-014, (Wed S06)10:10 Gialampouki, Martha, (Wed S15)09:50 Gieshoff, Tile, (*Fri S13*)11:50 Gil, Eric, S01-016, S02-005, (Mon S01)17:20 Gilbert, James A., S05-011 Gill, Simerjeet, (Tue S10)15:00 Gillette, Eleanor, (Mon S15)09:30 Gilson, Laura, (*Thu S06*)17:40 Giltzau, Niels Ole, (Thu S13)15:00 Giordano, Fabrizio, (Mon S15)17:40 Giotakos, Panagiotis, (Thu S06)15:00

Girault, Hubert H., (Mon S15)15:00, (Tue S16)14:20, (Tue S11)16:00, (Tue S09)17:40, (Thu S06)15:40 Girgsdies, Frank, (Fri S11)09:30 Giudici-Orticoni, Marie Thérèse, (Thu S11)16:00 Giuerrero, Silvia, (Tue S10)17:20 Glowala, Paulina, (Fri S03)12:10 Go, Hyungho, S05-030 Gocyla, Mateusz, S02-004 Godínez, Luis, (Mon S12)17:00, S12-023 Göbel, Gero, (Wed S04)09:50 Goellner, Vincent, (Fri S06)09:30 Görlin, Mikaela, S06-005, (Tue S15)16:40 Goetheer, Earl, S13-003 Götsch, Thomas, (Thu S11)17:20 Göttle, Adrien, (Fri S17)11:10 Gogotsi, Yury, (Mon S07)14:40, (Mon S07)15:40, (Tue S11)09:30 Goikolea, Eider, (Tue S07)14:40 Gokcen, Dincer, (Mon S15)09:30 Golden, David, (Mon S18)16:00 Golodnitsky, Diana, S05-020, (Tue S05)15:20, (Wed S05)10:10 Gomes, Filipa, (Mon S04)15:40 Gómez de la Fuente, José, (Tue S06)10:10 Gomez-Gil, Jose Maria, (Mon S19)17:20, (Thu S17)17:20 Goncales, Vinicius, (Tue S11)15:20 Gondosiswanto, Richard, (Tue S15)16:00 Gong, Mingxing, (Fri S11)09:50 Gonzalez, Carlos, (Thu S03)17:20 Gonzalez, Eduardo, S11-029 González, Ignacio, S04-016, S05-009 González, Joaquín, (Thu S17)17:20 González Rodríguez, María Luisa, S03-003 Gonzalez-Cobos, Jesus, S13-001 González-Cortés, Araceli, S03-014 Gonzalez-Macia, Laura, (Tue S02)10:10 Gooding, Justin, (Tue S11)15:20 Goor, Meital, S05-020, (Wed S05)10:10 Gorbatovski, Georg, (Tue S15)16:40 Gordon, Roy G., (Tue S12)18:00 Gossage, Zachary, (Tue S11)14:00, (Tue S11)17:20 Goubard-Bretesché, Nicolas, (Mon S07)14:00 Goulart, Marilia, (Tue S14)16:40 Goulet, Marc-Antoni, (Tue S12)18:00 Govindhan, Maduraiveeran, S03-004 Gowers, Sally, (Mon S02)15:20 Grätzel, Michael, S07-011, (Mon S15)17:40, S19-009 Graf, Matthias, (Thu S08)17:00 Grandinetti, Philip, (Tue S01)14:40 Grant, Patrick S., (Thu S05)15:00 Grattieri, Matteo, (Mon S04)16:40 Grden, M., (Tue S14)09:50 Greeley, Jeff, (Thu S06)14:00, S17-007 Grey, Clare P., (Tue Plenary)08:15 Griffini, Gianmarco, S19-009 Grimaud, Alexis, (Tue S15)17:40, (Fri S15)11:50 Grinstaff, Mark W., (Thu S04)17:20 Griveau, Sophie, S02-007, (Mon S02)17:40, (Tue S02)10:10, S19-029 Grönbeck, Henrik, (Thu S06)17:20 Groenen Serrano, Karine, (Thu S12)14:40, S12-018

Groß, Axel, (Fri S17)12:10

Gruebl, Daniel, (*Tue S01*)10:10, (Thu S05)09:30 Gruet, Nathalie, (Tue S10)14:40 Gu, Yu, S15-002 Gu, Zhiyong, S06-010, (Fri S11)11:10, S11-021 Guang, Shanyi, S05-001 Guarr, Thomas, S05-007, S07-002 Guay, Daniel, (Mon S15)14:20, (Mon S09)14:40 Gucciardi, Emanuele, (Tue S05)16:40 Guduru, Pradeep, (Tue S05)14:40 Guedes, Tiago, S02-005, S02-006 Guéguen, Aurélie, (Mon S05)17:00 Guerin, Katia, (Mon S06)15:20 Guerra, Carolina, (Fri S03)11:50 Guerriero, Paolo, (Mon S11)16:40, (Wed S11)09:30 Guetz, Christoph, (Thu S13)17:40 Guffanti, Paolo, (Tue S11)10:10 Guide, Matheus, S06-019 Guilemany, Josep Maria, S12-017 Guillot, Régis, S19-029 Guo, Dan, (Tue \$10)10:10 Guo, Kai, S05-038 Guo, Limin, (Thu S05)14:00 Guo, Ren-Hau, S12-007 Guo, Shaojun, (Thu S06)09:50 Gupta, Rupali, S03-001, S11-005 Gurkan, Burcu, S18-001 Gutel, Thibaut, (Fri S05)12:10 Gutierrez-Sanchez, Cristina, S04-003, (Thu S11)16:00 Guyomard, Dominique, (Fri S05)12:10 Guzmán, Gregorio, S05-009 Gwinner, Benoit, (Mon S10)14:00, (Tue S10)14:40 Ha, Seungbum, (Tue S05)17:40

Habazaki, Hiroki, (Mon S11)10:10, S11-023 Habtamu, Henok Baye, (Mon S14)16:00 Häcker, Joachim, (Thu S05)17:40 Haefele, Matthieu, (Tue S15)15:00 Haehnel, Veronika, (Mon S02)18:00 Haensch, Mareike, (Thu S08)16:00, (Thu S08)17:00 Hagfeldt, Anders, S07-011, (Mon S15)17:40, S19-009 Hagiwara, Rika, (Tue S09)14:00 Hahlin, Maria, (Tue S05)14:00 Hahn, Nathan T., S05-035 Haisheng, Su, S11-026 Halevi, Barr, (Fri S06)11:10 Hall, Shoji, (Tue S06)14:00 Ham, Yu Seok, S19-023, S19-025, S19-026 Hamon, J.-R., S11-018 Han, Donghoon, (Tue S14)14:00, (Tue S01)14:00 Han, Feng, (Fri S06)11:10 Han, Junfeng, S11-011 Han, Lianhuan, (Mon S12)15:20 Han, Sang-Don, (*Tue S05*)17:40 Han, Semi, S11-012, S11-013 Han, Seok Hee, S02-001 Han, Shan, (Thu S11)15:00 Han, Wei, S19-018 Han, Weiqing, S12-031 Hangarter, Carlos, (Mon S15)09:30 Hankin, Anna, (Mon S12)10:10

Hansen, Douglas, (Tue S10)16:40 Hansen, Heine Anton, (Thu S15)16:00 Hao, Qingli, (Fri S05)12:10 Hao, Yongsheng, (Tue S10)17:40 Haoliang, Huang, (Tue S15)14:40 Hapiot, Philippe, (Thu S15)15:40, (Fri S15)11:30 Hara, Agnieszka, S10-004 Hara, Takeru, S05-021 Hardacre, Christopher, (Tue S15)14:40 Harding, Morgan, (Thu S03)15:00 Haregewoin, Atetegeb, (Mon S05)10:10 Harrington, David A., (Mon S15)16:00 Hartung, Steffen, S05-027 Hasa, Ivana, (Mon S05)10:10 Hasan, Kamrul, (Mon S04)16:40 Hasegawa, George, S05-014 Hashemi, Javad, (Wed S15)09:50 Hashimoto, Koichi, (Fri S05)11:50 Hashimoto, Yu, S05-002 Hashinokuchi, Michihiko, (Mon S05)15:20 Hassan, Natalia, S01-009 Hatton, T. Alan, (Tue S11)18:20, (Fri S11)12:10, S12-032, S12-033 Hattori, Yuhei, (Thu S06)14:20 Hauf, Harald, (Mon S07)18:20, (Tue S07)17:40 Hayase, Nobuki, S06-034 Hayashi, Mio, S03-005, (Tue S16)15:40, (Thu S12)17:00 Hayashi, Mizuki, (Mon S06)15:40 Hayne, David, (Tue S14)15:20 He, Fan, S12-032 He, Jie, (Mon S16)15:20, (Tue S16)10:10 He, Menglan, S19-029 He, Minglong, (Thu S05)14:20 He, Ting, (Mon S12)15:40 He, Wenyan, (Thu S13)17:20 He, Zhen, (Thu S11)15:00 Hector, Andrew, (Mon S19)14:20 Hegemann, Martina, (Thu S05)17:20 Hegemann, Philipp, (Thu S05)17:20 Heien, Michael, (Mon S02)15:00 Heiskanen, Satu Kristiina, S19-019 Hejazi, Seyedsina, S11-032 Heller, Adam, (Mon Plenary)08:15 Hellman, Anders, (Thu S06)17:20 Hellwig, Petra, (Mon S04)18:20 Henderson, Jeffrey, S10-011 Henning, Sebastian, (Tue S06)09:30 Henry, Charles, (Mon S02)14:40 Henton, Daniel, S05-007 Heo, Su Jeong, S06-029 Hereijgers, Jonas, S12-003 Hermann, Johannes, (Wed S15)09:30 Hernandez, Griselle, (Thu S03)17:20 Hernandez, Kenneth, (Mon S11)18:00 Hernández Santos, David, S01-010, (Tue S01)18:00 Hernandez-Burgos, Kenneth, (Tue S11)14:00, (Tue S11)17:20 Hernandez-Sanchez, Gerardo, (Mon S09)17:00 Hernández-Vargas, Salvador Guadalupe, (Fri S11)11:10 Herrada, Rosa Alhelí, (Mon S12)15:00, S12-012 Herranz, Juan, (Tue S06)09:30 Herrera-Aguilar, Karina, S12-010 Herrero, Enrique, (Tue S15)15:40,

(Thu S15)16:40, S19-015 Herring, Andrew, (Thu S06)16:00 Herritsch, Alfred, (Tue S12)16:00 Hillman, Robert, (Mon S15)14:00, (Mon S18)17:00 Hilmi, Abdelkader, S06-029 Hiltrop, Dennis, (Tue S15)17:40 Hiraoka, Kenzo, S01-013 Hironaka, Yuya, S05-024 Hjelm, Johan, (Wed S06)09:30 Hnat, Jaromir, S06-007, (Tue S06)18:20 Hodnik, Nejc, (Tue S16)14:00 Hoeche, Daniel, (Tue S10)09:30 Hoerlein, Michael, (Fri S06)11:10 Hoffmann, Jennifer, S05-013 Hoffmannova, Hana, (Tue S15)14:20 Hogan, Conor, (Tue S14)15:20, (Tue S14)15:40 Hogg, Thomas Vagn, S15-010 Holdynski, Marcin, S02-004, (Mon S11)09:50, S16-009 Holloczki, Oldamur, (Mon S09)17:40 Holmes, Stuart, (Thu S06)10:10 Holst-Olesen, Kaspar, (Fri S06)11:10 Homma, Takayuki, S09-002, (Tue S05)09:30, (Thu S05)16:40 Honda, Shiori, (Mon S09)17:20 Hong, Jongsup, (Fri S06)12:10 Hong, Wei-Lung, (Mon S07)14:20 Hong, Yu-Hao, S06-022 Honkimäki, Veijo, S19-030 Hoque, Md. Khairul, S06-003, (Thu S06)14:40 Horch, Sebastian, (Thu S06)17:00 Horgan, Conor, (Tue S19)09:30 Horiba, Tatsuo, (Mon S04)17:20 Horstmann, Birger, (Tue S09)14:40, (Thu S17)10:10, (Thu S05)17:00 Hoshi, Yoshinao, S04-004, S04-005, S04-007 Hoshino, Tsuyoshi, (Mon S12)14:40 Hoshyargar, Faegheh, (Mon S19)17:40 Hosoda, Masatsugu, S06-020 Hosoya, Toshifumi, (Thu S12)17:00 Hou, Guang-Ya, S06-036, S11-035 Hou, Xianhua, S05-012 Houache, Mohamed, (Tue S12)15:20 Howell, Jonathon, (Thu S18)09:50 Howland, Rachael, (Thu S05)09:50, (Fri S05)11:30 Howlett, Patrick C., (Tue S09)16:40 Hrbac, Jan, (Tue S04)10:10 Hsieh, Chi-Feng, S07-010 Hsu, Da-Je, (Tue S07)17:20 Hu, Boxun, S06-029 Hu, Chi-Chang, S06-023, S07-001, S07-005, S07-010, S10-003, (Tue S07)17:20, S12-007 Hu, Hui-Qing, S19-027 Hu, Jin-Song, (Thu S06)17:00 Hu, Jue, (Fri S08)11:10 Hu, Lianzhe, (Mon S14)14:00 Hu, Ren, S04-015 Huang, Binbin, S13-005

Huang, Chen-Jui, (Tue S05)17:00

Huang, Chun, (Thu S05)15:00

(Fri S05)11:30

Huang, Kailu, S06-036

Huang, Ling, S05-008

Huang, Haobo, (Thu S05)09:50,

Huang, Ruomeng, (Mon S19)14:20 Huang, Sheng-Feng, S01-014 Huang, Wei, (Thu S06)15:20 Huang, Wenjiao, (Mon S06)10:10 Huang, Yi-Fan, (Mon S15)15:20, (Tue S14)17:20 Huang, Yi-June, (Thu S11)14:20 Huang, Zheng-Hong, (Tue S07)18:20 Hubin, Annick, (Mon S02)09:50, (Mon S06)17:20, (Thu S17)15:40, S12-003 Hufnagel, Gregor, (Mon S15)14:20 Hui, Jingshu, (*Tue S11*)14:00, (Tue S11)17:20 Hui, Yong, S15-001 Huiliñir, Cesar, S12-029 Hum, Zhaohui, (Thu S11)14:00 Hunter, Courney, (Mon S02)16:00 Hur, Tae-Uk, S11-003 Hursán, Dorottya, (Thu S11)14:00 Hussain, Sajid, (Mon S19)10:10 Hussey, Charles, (Wed S09)09:30 Hutcheson, Joshua, (Mon S02)16:00 Huynh, Tan-Phat, (Thu S04)15:20 Hvastkovs, Eli, (Thu S03)16:40 Hwa, Yoon, (Thu S05)09:50 Hwang, Bing Joe, (Tue S05)17:00, (Thu S11)15:20 Hwang, Ee Taek, (*Tue S14*)18:00 Hwang, Seunghae, S11-014, S11-015 (Tue S06)16:00

Iadecola, Antonella, (Mon S07)14:00 Iannuzzi, Marcella, (Fri S17)10:10 Ibanez, Jorge, (Mon S18)16:40 Idris, Olaviwola Azeez, S11-017 Ieropoulos, Ioannis, S04-014 Igarashi, Hikaru, S06-037 Iiyama, Akihiro, (Mon S06)15:40, Iizuka, Shota, (Tue S11)16:40, S15-015 Ikegami, Kahoru, S06-040 Ikemiya, Norihito, (Mon S11)18:20 Im, Chae-Nam, S05-037 Im, Sang Hyeok, (Mon S16)14:20 Inaba, Minoru, (Mon S05)15:20 Infossi, Pascale, (Thu S11)16:00 Ingrosso, Chiara, (Tue S11)10:10 Inguimbert, Nicolas, (Thu S11)09:50 Ino, Kosuke, S03-007, (Mon S01)16:40 Inoue, Akihisa, (Thu S08)14:40 Intermite, Stefania, S07-011 Inukai, Junji, (Tue S06)16:00 Inwood, Dave, (Tue S16)15:20 Irkham, Irkham, (Tue S11)15:00 Isaacs, Hugh, (Tue S10)15:00 Ishihara, Akimitsu, S06-037, (Thu S06)14:00 Ishii, Shuji, S04-002 Ishikawa, Hiroshi, (Tue S06)09:30 Ishikawa, Masashi, (Mon S05)16:00 Iskierko, Zofia, (Thu S04)15:20 Ismail, Abdul Ghani, (Mon S02)17:40 Ismail, Yahya, (*Thu S11*)15:40 Isoaho, Noora, (Fri S03)09:50 Ispas, Adriana, (Mon S09)14:00, (Mon S09)15:20, (Mon S09)16:40 Isse, Abdirisak Ahmed, S13-006 Istakova, Olga, S15-017 Itagaki, Masayuki, S04-004, S04-007

Itagaki, Noriaki, (Thu S06)14:20 Ito, Seitaro, (Fri S05)09:30, (Fri S05)11:10 Itota, Jonathan, (Mon S06)18:20 Iwakawa, Hitomi, (Mon S11)18:20 Iwase, Akihiro, S06-008 Iwuoha, Emmanuel, (Mon S12)17:20, S19-011 Iyanobor, Esther, (Thu S06)09:30 Iyer, Vinay, S05-034

J Jackson, Colleen, (Tue S16)15:20 Jackson, Megan, (Thu S15)17:00 Jacob, Timo, (Tue S15)14:20 Jacobse, Leon, (Mon S15)15:20 Jae Hyung, Kim, (Thu S06)16:40 Jain, Deeksha, (Fri S06)10:50 Jakes, Peter, (Thu S05)15:00 Jakmunee, Jaroon, (Mon S01)15:20 Jambrec, Daliborka, (Thu S03)14:20 James, Chirstine, (Tue S05)17:40 James, David, (Tue S15)15:40 Jamison, Timothy, (Tue S11)18:20 Janáky, Csaba, (Mon S11)15:00, (Thu S11)14:00, S11-036 Janek, Jürgen, (Tue S09)17:00 Janigro, Damir, (Wed S03)10:10 Jankovic, Jasna, S06-039 Jaouen, Frederic, (Wed S06)09:50, (Fri S06)09:30, (Fri S06)10:10 Jarosova, Romana, (Tue S09)10:10, (Tue S14)17:40 Jarry, Angelique, (Mon S05)10:10 Jasinski, Jacek, (Thu S11)09:30, (Fri S06)09:30 Jeanmairet, Guillaume, (Tue S15)15:00 Jedraszko, Justyna, (Tue S09)17:40 Jensen, Anders W., (Mon S06)16:40 Jeon, Sang-Ik, (Tue S05)14:00 Jeong, Hyejeong, S11-015 Jeong, Min-Gi, S05-010 Jeong, Yongsoo, S19-010 Jeschull, Fabian, (Thu S05)09:30 Jesse, Stephen, (Mon S07)15:40 Jeuken, Lars J.C., (Tue S14)18:00 Ji, Debin, (Mon S09)14:20 Jia, Qingying, S06-014, (Wed S06)10:10, (Fri S06)09:30 Jian, Siou-Ling, (Tue S16)17:20 Jiang, Bei, (Thu S15)14:00 Jiang, Dechen, S14-002 Jiang, Jietao, *S06-030* Jiang, Kun, (Thu S15)14:00 Jiang, Yan-Xia, (Fri S11)10:50 Jiang, Yangye, (Thu S13)10:10 Jiang, Yaqi, (Thu S06)09:30 Jiao, Xinyan, (Fri S05)12:10 Jijie, Roxana, (Wed S03)09:50 Jilani, Safia, (Thu S06)09:30 Jimenez-Morales, Ignacio, (Wed S06)09:50 Jin, Junhong, S06-006, S06-013, (Mon S06)09:50 Jin, Mok Yun, S05-038 Jin, Yi-Chun, (*Tue S05*)18:00 Jing, Xiaoyan, (*Tue S16*)17:40 Jinwoo, Woo, (Thu S06)16:40 Jo, Yong Nam, S05-003 Job, Nathalie, (Mon S06)18:00

Johansson, Leena-Sisko, (Fri S03)09:50

Johnson, Lee, (Thu S05)14:00

Johnson, Marcus, (Tue S12)10:10 Joi, Aniruddha, (Fri S08)10:10 Jokinen, Miikka, (Tue S01)17:40 Jolivalt, Claude, (Tue S04)17:00 Jonathan, Yarranton, S07-002 Jones, Abby, (Tue S02)09:50, (Fri S03)10:10 Jones, Deborah, (Wed S06)09:50, (Fri S06)10:10 Jones, Glenn, (Fri S17)10:50 Jones, Lathe, (Thu S11)17:40 Joniec, Aleksandra, (Tue S14)09:50, (Thu S03)15:40 Joo, Sang Hoon, (Thu S06)16:40 Josell, Daniel, (Tue S18)16:00 Joseph, Jiju, (Tue S10)10:10 Joshi, Anju, (Tue S04)17:20 Jovanov, Zarko, (Tue S15)16:40 Ju. Jian. (Mon S16)15:00 Juanjuan, Sun, S11-026 Juarez-Yescas, Carlos, S05-009 Juhaniewicz-Dębińska, Joanna, (Tue S04)14:40, (Tue S04)15:00 Jung, Ha-Young, S11-006 Jung, Hun-Gi, S05-010 Junge, Henrik, (Fri S13)11:30 Jurado Baizaval, José Luis, S12-023 Jurng, Sunhyung, (Fri S05)10:50 Jusys, Zenonas, (Thu S15)17:20 Juzgado, Arturo, (Mon S14)15:20 K

Kabir, Sadia, S04-018, (Wed S04)10:10 Kadyk, Thomas, (Thu S17)15:20 Käärik, Maike, (Fri S06)11:50 Kagn, Seung-Ho, S11-003 Kahn, Foysal Z., (Mon S02)18:00 Kahyarian, Aria, (Tue S10)18:00 Kain, V., (Mon S19)16:00 Kakinuma, Katsuyoshi, (Mon S06)15:40, (Tue S06)15:20 Kakitani, Kenta, S06-008 Kakizawa, Yu, (*Tue S06*)16:00 Kalaga, Kaushik, S05-011, (Tue S05)10:10 Kalantar-Zadeh, Kourosh, (Mon S19)17:40 Kallio, Tanja, (Fri S06)11:50 Kaminsky, Corey, (Thu S15)17:00 Kamir, Yossi, (*Tue S05*)15:20 Kammerich, A., S03-009 Kandjani, Ahmad, (Thu S11)17:40 Kaneko, Akira, (Mon S10)14:20 Kaneko, Soma, S06-020 Kang, Feiyu, (Tue S07)18:20 Kang, Joo, (Mon S05)17:40 Kang, Minkyung, (Tue S16)14:40 Kang, Seung Ho, S05-037, S05-039 Kang, Tong-Hyun, (Mon S05)18:00 Kanninen, Petri, (Fri S06)11:50 Kano, Kenji, (Mon S04)09:30 Kanoufi, Frédéric, (Mon S16)18:00 Kanso, Hussein, (Thu S11)09:50 Kaplan, Andrey, (Tue S16)17:00 Kar, Pradip, (Mon S01)15:20 Karaoglu, Gozde, S10-008 Kariman, Asadollah, (Tue S12)16:00 Karimi, Anahita, S16-007 Kariuki, Nancy N., (Fri S08)09:50 Kasahara, Seiji, (Tue S11)16:40 Kashi, Mehran, (Tue S11)15:20 Kashtiban, Reza, (Mon S19)14:20 Kasian, Olga, (*Tue S06*)18:00

Kastee, J., S03-009 Kastlunger, Georg, (Fri S17)09:50 Kataky, Ritu, (Tue S01)15:00 Katayama, Juliana, (Mon S01)18:00 Kato, Akihiro, S06-024 Kato, Masaru, S06-015, (Mon S04)16:00, S11-027, S19-008 Kato, Ryoko, (Mon S19)09:30 Katoh, Yutai, (Tue S10)14:00 Kauffman, Douglas, (Mon S16)14:40 Kavan, Ladislav, S19-031 Kawasaki, Masahiro, S06-038 Kawashimo, Toshiyuki, (Thu S11)17:00 Kayinamura, Y., S03-009 Kayran, Ugur, (Thu S03)14:20 Ke, Xinyou, (Tue S12)14:00 Kecsenovity, Egon, S11-036 Keddam, Michel, (Mon S10)09:30 Kehl, Anton, (Fri S13)11:50 Keles, Turgut, S19-022 Kelly, Robert, S10-010, (Mon S10)16:40, (Tue S18)17:40 Kelsall, Geoff, (Mon S12)10:10, (Fri S06)10:50 Kerr, Emily, (Tue S14)15:20 Ketter, Jacob, (Wed S07)09:30 Khan, Foysal, (Mon S02)16:00 Khan, Md. Zaved Hossain, S10-002 Khan, Sahr, (Thu S11)16:40 Khaper, Neelam, S03-004 Khorshidi, Alireza, (Thu S17)18:20 Khoshmanesh, Khashayar, (Mon S19)17:40 Kibena-Põldsepp, Elo, (Mon S11)14:40 Kibler, Ludwig, (Wed S15)09:30 Kibsgaard, Jakob, (Thu S06)15:20, S15-010 Kijewska, Krystyna, (Fri S03)11:10, (Fri S03)12:10 Killard, Anthony, (Thu S03)14:00 Kim, Byung-Kook, (Fri S06)12:10 Kim, Da-Hye, *S11-006* Kim, Gamwoo, S01-004 Kim, Hacksung, (Thu S05)17:00 Kim, Ho-Sung, S11-006, S11-006 Kim, Hoe Chul, S19-023, S19-025 Kim, Hyoungchul, (Fri S06)12:10 Kim, Hyung Sun, S05-031 Kim, Jae Jeong, S06-001, S19-023, S19-026 Kim, Ji-Youn, S05-037 Kim, Jina, (Tue S12)17:40 Kim, Jongjung, S11-015 Kim, Joohoon, (Mon S14)09:50, S16-003 Kim, Min-Young, S11-006 Kim, Minseok, (Mon S16)17:20, S16-006 Kim, Si-Won, (Fri S06)12:10 Kim, Soo, (Thu S05)17:00 Kim, Suk-Joon, S03-008 Kim, Tae Young, *S19-025* Kim, Taewon, (Tue S05)14:00 Kim, Yousoo, (Tue S11)16:40 Kimata, Tetsuva, S06-008 Kinch, Richard, (Mon S09)18:00 Kintsu, Kohei, (Wed S09)09:50 Kirk, Charlotte, (Fri S17)11:30 Kirk, Kevin, S16-007 Kirkensgaard, Jacob J.K., (Mon S06)16:40 Kiss, Tamás, (Thu S11)14:00 Kissling, Gabriela, (Mon S19)14:20 Kisslinger, Kim, (Tue S10)15:00 Kisu, Kazuaki, (Mon S07)14:00 Kitada, Atsushi, S01-013, (Wed S09)09:50

Kjeang, Erik, (*Thu S06*)14:00 Klapperich, Catherine, (Thu S04)17:20 Klett, Matilda, (Thu S05)17:20 Klunder, Kevin, S07-002 Klymenko, Oleksiy, (Thu S18)09:50 Knoche Gupta, Krysti, (Tue S01)16:00 Kobayashi, Tomohiro, S06-008 Kobayashi, Yo, (Mon S05)17:20 Koca, Atif, (Thu S11)09:50, S19-020, S19-021, S19-022 Kocabas, Coskun, (Mon S15)10:10 Kodali, Mounika, S04-014, S04-017, (Mon S07)10:10 Koenig, Gary, (Tue S18)17:40, (Fri S11)12:10 König, Jörg, (Mon S02)18:00 Koggala Wellalage, Dilni Kaveendi, S15-003 Kohl, Paul A., (Mon S06)10:10 Kojima, Katsuhiro, (Wed S04)09:30 Koleva, Dessi, (Tue S18)18:00 Koley, Dipankar, (Mon S01)18:20 Komaba, Shinichi, S05-024, (Mon S04)17:20, (Fri S05)11:50 Komanicky, Vladimir, (Thu S08)15:40 Konakawa, Koutaro, S05-016, (Thu S05)14:40 Konarzewska, Dorota, (Tue S04)15:00 Konczak, Christoph, (Mon S02)18:00 Konev, Dmitry, (Fri S15)09:30, (Fri S15)09:50 Kong, Rui, (Tue S12)09:50, (Thu S03)15:00 Kongi, Nadezda, (Mon S19)10:10 Kongkanand, Anusorn, (Fri S08)09:50 Kook, Mati, (Fri S06)11:50 Koper, Marc, (Mon S15)15:20, (Mon S15)16:40, (Mon S15)17:20, (Tue S15)15:00, (Tue S15)17:40, (Thu S13)15:40, (Fri S13)10:10, (Fri S17)11:10, S15-007 Kormányos, Attila, (Thu S11)14:00 Kornyshev, Alexei, (Mon S07)09:30 Kortlever, Ruud, (Thu S06)17:20 Korzeniewski, Carol, (Mon S01)09:30 Kosa, Gabor, (Tue S05)15:20 Koskinen, Jari, (Fri S03)09:50 Kostecki, Robert, (Mon S05)10:10 Koster, Dominique, (Tue S19)10:10, S19-004 Kovacs, Noemi, (Mon S19)16:40 Kowalski, Damian, (Fri S11)10:10 Kramer, Denis, (*Tue S16*)15:20, (Fri S06)09:50 Kratz, Markus, (Mon S01)15:00 Krewer, Ulrike, (Thu S17)14:00, (Thu S17)14:20, (Thu S06)14:20, (Thu S17)15:20 Kriek, Cobus, (Thu S15)14:40 Krischer, Katharina, (Tue S15)14:00, (Tue S18)16:40, S19-004 Krishnamurthy, Dilip, (Thu S06)16:40 Krishnan, Sadagopan, S03-013, (Thu S04)16:00 Krolikowska, Agata, (Fri S03)11:10 Kromer, Matthew, (Mon S11)15:20 Krtil, Petr, (Tue S15)14:20, (Fri S06)09:30, S19-031 Kruger, Markus, (Mon S06)18:20 Kruszewski, Marcin, (Tue S19)09:50 Kruusenberg, Ivar, (Fri S06)11:50

Krysinski, Pawel, (Tue S14)09:50, (Thu S03)15:40, (Fri S03)11:10 Krzak, Agata, (Tue S19)09:50 Krzeminski, Lukasz, (Tue S14)18:00 Kube, Alexander, S05-036 Kubota, Kei, S05-024, (Fri S05)11:50 Kucernak, Anthony, (Tue S16)15:20 Kudo, Akihiko, S11-028 Kühl, Stefanie, S06-028 Kühn, Laura, (Tue S06)09:30 Kuhn, Alexander, (Mon S14)17:40, (Thu S04)15:20 Kulametov, Zhalgas, (Tue S05)14:20 Kulesza, Pawel J., (Mon S18)17:20, (Thu S15)10:10 Kumar, Alam Venugopal Narendra, \$16-006 Kumar, Ravi, (Fri S05)09:30 Kumari, Sudesh, (Fri S06)09:30 Kungl, Hans, (Thu S05)15:00 Kunikata, Ryota, S03-007 Kunz, Ulli, (Tue S12)18:20 Kunz, Ulrich, (Tue S12)16:40 Kunze-Liebhaeuser, Julia, (Tue S15)18:00, (Thu S11)17:20 Kuo, Mei-Chen, (Thu S06)16:00 Kurmanbayeva, Indira, (Tue S05)14:20 Kuroda, Yoshiyuki, S06-037, (Thu S06)14:00 Kurungot, Sreekumar, (Wed S03)09:50 Kushima, Akihiro, (Thu S05)15:40 Kutner, Wlodzimierz, (Thu S04)15:20 Kuttiyiel, Kurian, (Fri S08)11:10 Kuwabata, Susumu, S05-002, (Tue S09)15:20 Kvarnström, Carita, (Thu S11)10:10 Kwak, Kyuju, (Mon S16)17:20, S16-006 Kwon, Seung-Ryong, S02-001, (Tue S14)14:00 Kwon, Yunhye, (Thu S03)15:20 Labbe, Eric, (Tue S14)16:00 Labbe, Fabien, (Mon S06)15:20

La Mantia, Fabio, (Tue S19)10:10, S19-004 Laborda, Eduardo, (Mon S19)17:20, (Thu S17)17:20 Laborde, Cecilia, (Tue S15)15:20 Lac, Kevin, (*Tue S14*)10:10 Lacina, Karel, (Tue S04)09:50 Lacoste, Francois, (Fri S12)09:30 Lafforgue, Clemence, S06-002 Lafouresse, Manon, (Tue S14)17:00 Lagrost, Corinne, (Thu S15)15:40, (Fri S15)11:30 Lai, Junhui, (Mon S12)15:20 Lam, Chiu, (Thu S13)16:00 Lam, Kwok-ho, S05-012 Lamaka, Sviatlana, (Tue S10)09:30 Lamberti, Andrea, (Tue S05)17:20 Lamibrac, Adrien, (Tue S06)16:00 Lampe-Onnerud, Christina, (Mon S05)15:40 Lan, Yandi, (Thu S12)14:40 Landau, Ehud, (Thu S04)15:40 Landau, Uziel, S18-001 Landon-Lane, Leatham, S16-008 Landrot, Gautier, S06-035 Lang, Gyozo G., (Mon S19)16:40 Langelier, Brian, (Wed S08)10:10 Lanzarini-Lopes, Mariana, S12-019

Lapointe, François, S14-001

Larabi-Gruet, Nathalie, (Mon S10)14:00 Laranjinha, Joao, S03-011 Larcher, Dominique, (Thu S05)14:20 Laschewsky, André, S04-013 Laszczynski, Nina, (Thu S05)14:40 Latsuzbaia, Roman, S13-003 Latz, Arnulf, (Tue S09)14:40, (Thu S17)10:10, (Thu S05)17:00 Laue, Vincent, (Thu S17)14:20, (Thu S06)14:20 Laugel, Nicolas, (Wed S12)10:10 Laurent, Barbara, (Mon S10)14:00, (Tue S10)14:40 Laurila, Tomi, (Fri S03)09:50 Laurinavicius, Lukas, (Tue S07)18:00 Lawrence, Matthew, (Mon S11)15:20, S11-016 Lázaro, Isabel, S12-026 Le Bideau, Jean, (Mon S07)17:20 Le Digabel, Matthieu, (Tue S07)15:20 Le Duff, Cecile, (Tue S15)15:20 Le, Jiabo, (Fri S17)10:10 Le Naour, Claire, (Mon S09)17:00 Le, TrungHieu, (Tue S07)18:20 Leach, Andrew, (*Tue S16*)15:20 Leanza, Daniela, (Tue S05)18:20 Lebacq, Olivier, (Mon S06)17:40 Lebon, Emilie, (Mon S10)17:40 Lecadre, Florian, (Thu S08)15:00 Lecarme, Laureline, S05-025 Leclerc, Nathalie, (Mon S09)18:20 Lecomte, Sophie, S04-003 Leddy, Johna, (Mon S18)14:20, (Tue S01)16:00 Ledendecker, Marc, (Tue S06)18:00 Ledesma-García, J., (Fri S06)11:30 Ledo, Ana, S03-011 Lee, Chang Hwa, (Tue S18)16:00 Lee, Changwook, (Tue S05)17:40 Lee, Danbi, S05-030 Lee, Dong-Gyu, (Tue S05)14:00 Lee, Dongil, (Mon S16)14:20, S16-006 Lee, Eungje, (Thu S05)17:00 Lee, Gibaek, S05-030 Lee, Hae-Weon, (Fri S06)12:10 Lee, Jong-Ho, (Fri S06)12:10 Lee, Joo-Yul, S19-010 Lee, Juhan, (Tue S07)10:10 Lee, Ko-Woon, S05-003 Lee, Moo-Sung, S11-006 Lee, Myung Hyun, S19-026 Lee, Sangseob, *S03-008* Lee, Sun-Mi, S05-003 Lee, Taejin, *S11-015* Lee, Wendy, S06-039 Lee, Yeongdae, S06-009, (Tue S05)14:00 Lee, Yi Yang, (Thu S12)09:50 Lee, Yongjin, (Mon S16)14:20, (Mon S16)17:20 Leech, Donal, (Mon S04)17:40, (Tue S02)09:50, (Tue S04)18:20, (Fri S03)10:10 Lefebvre, Olivier, (Thu S12)09:50, (Thu S12)10:10, (Thu S12)14:20, (Thu S12)15:20 Lefler, Matthew, (Tue S12)10:10 Legeai, Sophie, (Mon S09)18:20, (Tue S09)09:30

Legrand, Nathalie, (Thu S17)14:40

Lei, Yu, (Thu S03)14:40

Leimkühler, Silke, (Wed S04)09:50 Leis, Jaan, (Fri S06)11:50 Leitch, J. Jay, (Tue S04)15:20 Leitner, Klaus, (Mon S05)15:00 Leleu, Samuel, (Mon S10)14:40, (Tue S10)09:50 Lelong, Romain, (Wed S18)09:30 Lemay, Serge G., (Mon S02)14:00, (Tue S15)15:20 Lenz, Oliver, (Thu S11)16:00 Leong, Chi Leng, (*Mon S02*)15:20 Leroux, Yann R., (Thu S15)15:40 Lesch, Andreas, (Tue S11)16:00, (Thu S06)15:40 Lethien, Christophe, (Mon S07)17:20 Leu, Gao-Shee, (Tue S07)17:20 Leung, Kaylyn, S04-012, (Tue S15)09:50, S15-009 Levecque, Pieter, (Tue S16)15:20, (Thu S15)14:40 Li, Chao-Yu, (Mon S15)18:00, S15-004 Li, Dongjiang, (Thu S17)09:30 Li, Guang, S06-006, S06-013, (Mon S06)09:50 Li, Guixin, (Mon S14)18:20 Li, Jak, (Tue S07)16:40 Li, Jian-Feng, (Mon S15)18:00, (Tue S14)17:20, (Thu S15)15:40, S15-004 Li, Jianlin, S05-004, (Mon S05)09:30 Li, Jiansheng, *S12-031* Li, Jing, S05-013, (Mon S14)18:00 Li, Jingkun, S06-014, (Fri S06)09:30 Li, Ju, (Thu S05)15:40 Li, Juchuan, (*Tue S05*)17:40 Li, Jun, (Thu S05)15:20 Li, Le, S07-007, (Thu S11)16:40 Li, Lei, (Mon S16)15:00 Li, Lingjun, (Tue S05)18:20 Li, Lingling, *S14-003* Li, Mei, *S19-018* Li, Mengqiu, (Tue S14)18:00 Li, Mi, (Tue S10)10:10 Li, Mian-Gang, (Fri S15)11:30 Li, Min, (Mon S02)09:30 Li, Peng, S19-032 Li, Qianqian, (*Thu S05*)17:00 Li, Qing, (Thu S11)17:40 Li, Sam Fong Yau, (Thu S06)15:20 Li, Shengxi, (Mon S10)17:20 Li, Wei, S11-007 Li, Wenlong, S19-018 Li, Xiaohong, (Fri S11)10:10 Li, Xiaokun, (Mon S16)15:00, S11-025 Li, Yao-Qun, S15-011 Li, Yiju, S11-011 Li, Zhiyang, S06-010, (Fri S11)11:10 Li, Zhujie, (Tue \$15)15:00 Li, Zhuyao, S19-018 Lian, Keryn, (Tue S07)16:40 Liang, Jifu, S01-011 Liang, Sen, (Thu S13)10:10 Liang, Wentao, S06-014 Liang, Zhixiu, (Tue S10)15:00 Liao, Ying-Chih, (Mon S11)17:20, (Tue S04)18:00 Licandro, Emanuela, (Thu S13)15:20 Licht, Stuart, (*Tue S12*)10:10 Lifshitz, Moran, (Tue S05)15:20

Lim, Seh-Yoon, (Thu S05)16:00

Lim, Taeho, S19-023

Lima, Alex, (Thu S03)10:10 Lima, Amanda, *S02-006* Lin, Hsin-Jung, (Tue S05)18:00 Lin, Jie, (Fri \$06)11:30 Lin, Kai-Qiang, S15-011 Lin, Lu-Yin, (Mon S07)14:20 Lin, Lu-Ying, (Mon S07)14:20 Lin, Ming-Hsien, (Tue S05)17:00 Lin, Rongying, (*Tue S05*)15:00 Lin, Sheng Chi, S07-001 Lin, Wen-Feng, (*Tue S15*)16:00 Lin, Xiao, (Tue S15)16:00 Lin, Yong-Yi, (Thu S05)17:40 Lin, Zifeng, (Mon S07)14:40 Linacero, R., (Tue S01)17:00 Lindbergh, Göran, (Thu S05)17:20 Lindgren, Per, (Fri S17)09:50 Linge, Jonas Mart, (Fri S06)10:10 Lipkowski, Jacek, (Tue S04)14:00, (Tue S04)15:20 Lisdat, Fred, S04-013, (Wed S04)09:50 Lisowski, Wojciech, (Thu S04)15:20 Little, R. Daniel, (*Thu S13*)16:00 Liu, Ben, (Tue S16)10:10 Liu, C.C., S18-001 Liu, Chang, (Tue S15)18:20 Liu, Chao, S10-010, (Mon S10)16:40 Liu, Ching-Fang, S10-003 Liu, Chuqing, *S06-010* Liu, Danny, (Tue S01)14:40 Liu, Danqing, (Mon S14)18:20 Liu, Guokun, (Tue S18)16:00 Liu, Jiangjin, S17-001 Liu, Jianguo, *S06-011* Liu, Jilei, (*Tue S12*)17:00 Liu, Liwei, (Tue S05)14:40 Liu, Minmin, (Mon S16)15:00, S11-025 Liu, Qian V., (Tue S15)09:30 Liu, Shuai, (Fri S15)11:30 Liu, Shuo, S15-011 Liu, Wenjuan, (Mon S05)17:40 Liu, Xiaobo, S03-012, (Thu S03)16:00 Liu, Xiaoqing, (Mon S14)14:00 Liu, Xiaoying, (Mon S14)18:20 Liu, Yihua, (Mon S15)09:30, (Thu S08)15:40 Liu, Yu-Chien, (Tue S07)17:20 Liu, Yuanchao, (Mon S04)09:50 Liu, Yuhui, (Tue S16)17:40 Liu, Zengcai, (Thu S06)14:20 Liu, Zhonggang, S03-004 Liu, Zhongyuan, (Mon S14)14:00 Livingston, Corbin K., S06-003 Llanos, Javier, (Mon S12)18:20, S12-020, S12-020 Loh, Adeline, (Fri S11)10:10 Lohrengel, Manuel, (Mon S19)15:20 Lojou, Elisabeth, S04-003, (Thu S11)16:00 Lombardi, Mariangela, (Mon S10)18:20 Londoño-Escobar, Jorge I., S12-002 Long, Du Hoang, *S05-010* Longhi, Mariangela, S06-012, (Thu S13)15:20, (Thu S11)17:20 Loparo, Kenneth, S01-011 Lopes da Silva, Amison R., (Thu S12)15:00 Lopes de Macêdo, Isaac Yves, S01-016, (Mon S01)17:20 López, Rosa Luz, S12-026 Lopez-Rodriguez, Joaquin, S05-034 Lopez-Vizcaino, Ruben, S12-027

Lorenzi, Sergio, (Mon S10)18:20

Lorie Lopez, Jose, (Tue S01)14:40 Los, Przemyslaw, (Thu S12)09:30, (Thu S12)09:30 Losada-Pérez, Patricia, (Thu S08)15:20 Lourenco, Catia, S03-011 Lousteau, Cedric, (Mon S09)14:40 Lowe, Michael, (Mon S05)17:40 Lowen, Hartmut, (Wed S17)09:50 Lu, Chi-Han, S01-014 Lu, Min, (Thu S06)15:20 Lu, Wei, (Tue S14)17:20, (Fri S15)11:30 Lu. Weiwei. S12-021 Lu, Yizhong, (Mon S16)15:00, S11-025 Lubers, Alia, (Mon S06)09:30 Lucht, Brett, S05-013, (Mon S05)14:40, (Thu S05)14:40, (Fri S05)10:50, S12-011, S15-003, S19-019 Ludwig, Roland, (Mon S04)15:20. (Tue S04)17:40, (Tue S04)18:20 Luitel, Tulashi, (Tue S01)15:40 Lukomska, Aneta, (Thu S12)09:30 Lunte, Susan, (Mon S02)16:40 Luo, Bing, (Fri S08)12:10 Lust, Enn, (Tue S15)16:40 Lust, Katherine, (Mon S18)16:00 Lynch, Kelsey, (Mon S04)10:10 Lyons, Daniel, (Tue S01)14:40 Ma, Chen-Chi M., S07-001, S07-005 Ma, Fuduo, (Mon S05)16:40 Ma, Hedi, (Mon S16)15:40 Ma, Ke, (Tue S14)17:40 Ma, Su, (Mon S04)15:20

Ma, Teng, S05-038 Ma, Zi-Feng, S06-014 Maagaard, Thomas, (Thu S06)17:00 Mabuba, Nonhlangabezo, (Mon S01)09:50, S11-017 Mabuchi, Michiaki, S06-034 MacFarlane, Douglas, (Mon S07)16:00, (Tue S09)16:40 Machado Benedetti, Tânia, (Tue S09)15:40 Machuca-Martínez, Fiderman, S12-002 Maciel, Juliana V., (Mon S01)17:40 Mackiewicz, Marcin, (Wed S11)10:10 Madsen, Laila Grahl-, (Wed S06)09:30 Maeda, Yuya, S06-038 Magner, Edmond, (Tue S04)17:40, (Tue S04)18:20 Magnussen, Olaf, (Mon S15)16:00, S19-030 Mahmoudi, Mohamad, (Mon S10)15:20 Maia, Luísa B., (Mon S04)15:40 Maibach, Julia, (Tue S05)14:00 Maier, Joachim, S05-014, (Thu S05)16:00, (Fri S15)10:10 Maillard, Frederic, S06-002, (Mon S06)17:00, (Mon S06)17:40, (Mon S06)18:00, (Wed S15)10:10 Maiza, Mariem, (Thu S17)14:40 Majdecki, Maciej, (Tue S19)09:50 Majkowska-Pilip, Agnieszka, S03-002 Makelane, Hlamulo, (Mon S12)17:20

Makgopa, Katlego, (Thu S06)09:50

Mamtani, Kuldeep, (Fri S06)10:50

Mandal, Debaprasad, (Fri S06)10:50

Malis, Jakub, S06-031, (Tue S12)09:30,

Maleski, Kathleen, S07-003

(Thu S06)14:40

Mandal, H., S03-009

Mandal, Pratiti, S19-012 Mandal, Soumyajit, S01-011 Mandler, Daniel, (Tue S02)09:30 Manfredi, Diego, (Mon S10)18:20 Manko, Michal, (Mon S19)15:20 Mano, Nicolas, (Thu S11)16:00 Manolescu, Dorina, S06-039 Manríquez, Juan, (Mon S12)15:00, (Fri S03)09:30, S12-010, S12-012 Mantoux, Arnaud, (Tue S12)17:20 Manzanares, Jose, (Tue S16)14:20, (Tue S01)17:40 Manzur, Cecilia, S11-018 Mao, Bing-Wei, (Tue S14)17:20, (Fri S15)11:30, S15-001, S15-002, S15-006 Mao, Langun, S04-009, (Wed S03)09:30 Mao, Linchang, S06-006, S06-013. (Mon S06)09:50 Mao, Wei, S06-008 Mao, Xianwen, S12-033 Maran, Flavio, (Mon S16)14:00, (Mon S14)14:40 Marcaccio, Massimo, (Mon S14)09:30, (Tue S11)14:40 Marchini, Florencia, (Fri S05)10:10 Marcisz, Kamil, (Wed S11)10:10 Marco, José, (Mon S11)17:40 Maria, Forsyth, (Tue S09)16:40 Marino, Cyril, (Wed S11)10:10, (Thu S05)14:20 Maris, Humphrey, (Tue S05)14:40 Markiewicz, Matthew, (Tue S16)15:20 Markmann, Jürgen, (Thu S08)17:20 Marley, Eunan, (Mon S09)10:10 Maroun, Fouad, (Tue S14)17:00, (Thu S08)15:00, S15-012, S16-001, S19-030 Marriaga-Cabrales, Nilson, S12-002, S12-030 Marshall, Aaron, S02-008, (Tue S12)16:00, S16-008 Martens, Isaac, (Mon S06)15:00 Martens, Sladjana, S05-027, S09-001, (Mon S09)15:20 Martin, Heidi, S18-001 Martin, Jean-Frédéric, (Tue S15)17:00 Martin, Michael, (Mon S05)10:10 Martin, Pierre-Alexandre, (Tue S09)16:00 Martin, R. Scott, (Mon S02)15:40 Martín Yerga, Daniel, (Tue S01)18:00 Martinazzo, Rocco, (Thu S13)15:20 Martinet, Sebastien, S05-025 Martínez Rodríguez, Roberto Alexis, S19-033 Martínez-Huitle, Carlos Alberto, (Thu S12)15:00, S12-022, S12-028 Martins, Rui C., (Thu S12)16:40 Martins, Vitor L., (Tue S09)15:40 Masa, Justus, (Thu S06)15:40, (Thu S06)17:00 Masel, Richard I., (*Thu S06*)14:20 Masikini, Milua, S19-011 Massi, Lucia, (Tue S19)09:30 Masuda, Yuta, (Thu S05)16:40 Matanovic, Ivana, S02-002, S04-018, S06-016, (Wed S04)10:10, (Thu S06)15:20 Mathis, Tyler, S07-003, (Mon S07)14:40 Mathivanan, Johnsi, S01-003, S01-003

Matisen, Leonard, (Mon S11)14:40, (Fri S06)10:10 Matos, Gorge, (Tue S10)17:20 Matsubara, Naohiro, S11-027 Matsuda, Honoka, (Mon S19)09:30 Matsue, Tomokazu, S03-007 Matsui, Yukiko, (Mon S05)16:00 Matsumoto, Kazuhiko, (Tue S09)14:00 Matsumoto, Ryo, (Mon S05)15:20 Matsumura, Daiju, S06-008 Matsushima, Hisayoshi, (Mon S09)17:20 Matsuzawa, Koichi, S06-037, S06-040, (Thu S06)14:00 Mattana, Giorgio, (Thu S04)15:00 Mattarozzi, Luca, (Mon S11)16:40, (Wed S11)09:30 Matthews, Allan, (Wed S12)09:30, (Wed S12)10:10, (Fri S15)11:10 Mattiacci, Giorgio, (Fri S06)09:50, S16-005 Matyszewska, Dorota, (Tue S04)15:20 Maxakato, Nobanathi, (Mon S01)09:50 Maya-Cornejo, Jose, (Fri S06)11:30 Maye, Sunny, S09-003, (Fri S05)10:10 Mayne-L'Hermite, Martine, (Mon S07)17:40, (Mon S07)18:20, (Tue S07)17:40 Mayoral, Kalaumari, (Mon S12)17:00 Mayrhofer, Karl, (Mon S15)15:40, (Tue S06)18:00 Mayur, Manik, (Thu S05)09:30, S17-002 Mazur, Maciej, (Fri S03)12:10 Mazurenko, Ievgen, (Thu S11)16:00 McCool, Geoffrey, (Mon S06)09:30, (Fri S06)11:10 McCreery, Richard, (Tue S15)15:40 McDunn, Jonathan, (Thu S03)09:30 McEldrew, Michael, S17-005 McGrath, Louise, (Thu S05)15:40 McHail, D., S03-009 McKinney, Samuel, (Mon S06)09:30, (Fri S06)11:10 Meas, Yunny, S12-008, S12-023 Mecerreyes, David, S05-006 Mechler, Anna K., (Thu S06)15:00, (Fri S06)10:10 Medeiros de Araújo, Danyelle, S12-022 Medel, Alejandro, S12-023 Medjram, Mohamed Saleh, (Wed S03)09:50 Mei, Bastian, (Thu S06)15:40 Melander, Christian, (Thu S03)16:40 Meligrana, Giuseppina, S05-026. (Tue S05)15:00, (Tue S05)17:20 Melin, Frederic, (Mon S04)18:20 Meller, Mikolaj, S07-004 Melo, Jéssica, S12-015 Meloni, Gabriel, (Mon S18)17:40, (Thu S03)10:10 Mendes, Paula M., (Tue S06)14:20 Mendez, Ana María, S19-007 Mendez De Leo, Lucilla, (Tue S15)14:40 Mendez, Manuel, (Mon S05)17:00 Méndez-Morales, Trinidad, (Tue S15)15:00 Méndez-Tovar, Marcela, S04-016 Menegatti, Ricardo, S01-016, (Mon S01)17:20 Meneghello, Marta, (Mon S04)15:20 Meng, Guangnan, S06-014 Menon, Madhu, (Fri S06)09:30 Mentbayeva, Almagul, S05-032,

(Tue S05)14:20

Mentizi, Stamo, S13-004 Menzel, Jakub, S07-008, (Tue S07)15:00 Mercer, Conan, (Tue S02)09:50, (Fri S03)10:10 Merino-Jimenez, Irene, S04-014 Merisalu, Maido, (Mon S19)10:10, (Fri S06)10:10 Meroni, Daniela, S11-034 Merzdorf, Thomas, S06-005. (Tue S15)16:40, (Thu S06)16:00 Meskauskas, Tadas, (Tue S04)15:40 Mestre, Quentin, (Mon S07)18:20 Metkemeijer, Rudolf, (Mon S06)15:20 Metz, Kevin M., S06-003 Meunier, Anne, S09-005 Meux, Eric, (Mon S09)18:20 Mezgebe, Mebrahtu Melake, S05-001 Michez, Roman, (Tue S09)09:50 Mihali, Voichita, S13-006 Mihaylov, Luben, (Thu S08)14:40 Mijaylova Nacheva, Petia, S12-023 Milczarek, Grzegorz, (Mon S11)15:40, S11-019 Milet, Remy, S10-012 Milien, Mickdy, S05-013 Miller, Dusty, S02-009 Miller, Jeffrey, (Thu S15)17:00 Miller, John, (Wed S07)09:50 Millet, Pierre, (Tue S06)17:40, S11-028 Milton, Ross, (Mon S04)15:00, (Mon S04)16:40, (Mon S04)17:40 Min, Kyoungmin, (Wed S15)09:30 Mineva, Tzonka, (Fri S06)09:30 Mingo, Beatriz, (Wed S12)09:30 Minhová Macounová, Katerina, S19-031 Minteer, Shelley, S04-001, (Mon S04)15:00, (Mon S04)16:40, (Mon S04)17:40, (Tue S18)15:20 Miomandre, Fabien, (Tue S14)17:00 Mirkin, Michael V., S16-002, S17-003 Mirzadeh, Mohammad, (Thu S17)17:40 Miserque, Frédéric, (Mon S10)14:00, (Tue S10)14:40 Misicka-Kesik, Aleksandra, (Thu S03)15:40 Mitchell, Arnan, (Mon S19)17:40 Mitsushima, Shigenori, S06-024, S06-037, S06-040, (Thu S06)14:00 Mkehlane, Moleko Samuel, S19-011 Mocaer, Adrien, (Mon S11)09:30 Modestov, Alexander, (Fri S15)09:30 Moeller, Kevin, (Thu S13)09:30. (Fri S13)11:50 Moeremans, Boaz, S05-015 Moffat, Thomas, (Mon S15)09:30, (Mon S01)16:00, (Tue S18)16:00, (Wed S12)09:50 Mogensen, Mogens Bjerg, (Wed S06)09:30 Molina, Angela, (Mon S19)17:20, (Thu S17)17:20 Molina-Concha, Belen, (Mon S06)15:20 Momeni, Mojtaba, (Tue S10)10:10 Momiyama, Misaki, S04-005 Momma, Toshiyuki, S01-017, S05-021 Mondschein, Jared, (Tue S06)18:00 Monroe, Charles W., (Wed S17)10:10 Monsalve, Karen, (Thu S11)16:00 Monteiro, Edirlan, S12-015 Montiel, Miguel A., (Tue S09)17:20 Montiel, Vicente, (Tue S12)15:00, (Tue S09)17:20

Montigaud, Hervé, (Thu S17)17:00 Montoto, Elena, S05-034, (Tue S11)14:00 Montoya, Joseph H., (Wed S15)09:50 Moore, Jeffrey, S05-034, (Mon S11)18:00, (Tue S11)14:00 Moosbauer, Dominic, (Wed S07)09:30 Mooste, Marek, (Mon S11)14:40 Morais Lião, Luciano, S01-016 Morais, Simone, (Mon S04)15:40 Moraleda, Inmaculada, S12-020 Morcrette, Mathieu, (Thu S05)14:20, (Fri S05)11:10 Mori, Kazushige, (Wed S04)09:30 Mori, Shinsuke, (Tue S04)17:00 Morigayama, Yukiya, S04-004 Morillot, Helene, S10-012 Morita, Naoto, S06-024 Morteza Ali, Abdollah, S07-011 Mortimer, Nicholas, S05-007 Mosa, Islam, (Tue S16)10:10 Mostafa, Ehab, (Thu S12)14:00 Motta, Simone, (Thu S03)10:10 Motz, Andrew, (Thu S06)16:00 Moudrakovski, Igor, S05-014 Moura, Isabel, (Mon S04)15:40 Moura, José J.G., (Mon S04)15:40 Mousavi, Maral, (Mon S18)16:00 Mueller, Franziska, (Mon S05)09:50 Mueller, Jonathan, (Tue S15)14:20 Müller, Volker, (Mon S04)14:00 Mugo, Jane, (Fri S17)10:50 Mukaeva, Veta, (Fri S15)11:10 Mukanova, Aliya, S05-032 Mukerjee, Sanjeev, S06-014, (Mon S06)09:30, (Wed S06)10:10, (Fri S06)09:30 Mukoyama, Daikichi, S01-017 Mukra, Tzach, S05-020, (Wed S05)10:10 Muldoon, John, (Mon S05)18:20 Muldoon, Timothy, (Mon S02)16:00 Muller, Christian Immanuel, S06-007 Multerer, Michael, S05-005, (Fri S05)09:50 Muñoz, Karina, (Thu S11)15:40 Munoz, Macarena, S12-006 Muñoz, Martin, (Mon S12)18:20, (Thu S12)15:40 Munoz, Rodrigo, S02-006 Muñoz-García, Ana B., (Tue S05)17:20 Murase, Kuniaki, S01-013, (Wed S09)09:50 Murata, Kazuki, S04-008 Muratsubaki, Shotaro, (Fri S05)11:50 Murphy, Joe, S05-033, (Tue S12)14:00 Murtomäki, Lasse, (Tue S01)17:40 Musiani, Marco, (Mon S11)16:40, (Wed S11)09:30 Mussa, Abdilbari S., (Thu S05)17:20 Mussini, Patrizia Romana, (Tue S11)15:40, (Thu S13)15:20, S13-006 Mustain, William, (Mon S18)18:00, (Fri S06)09:50 Mustarelli, Piercarlo, S05-029 Muthukrishnan, Azhagumuthu, (Thu S06)17:40 Muto, Marika, S11-027 Mutschke, Gerd, (Mon S02)18:00, (Mon S02)18:20 Myers, Deborah J., (Fri S08)09:50 Mysyk, Roman, (Tue S07)14:40

#### Ν

Nabae, Yuta, (Thu S06)17:40 Naejus, Régine, (Tue S05)15:40 Nagai, Takaaki, S06-037, (Thu S06)14:00 Nagaiah, Tharamani Chikka, (Tue S04)17:20, (Fri S06)10:50 Nagarjuna, Gavvalapalli, S05-034 Nagasawa, Kensaku, S06-024, S06-040 Nagata, Morio, (Thu S11)15:00 Naguib, Michael, (Mon S07)15:40 Nahorna, Olha, (Thu S13)15:40 Nair, Jijeesh R., S05-006, S05-026, (Tue S05)15:00 Naitjho, Nabila, S03-003 Naim, Marina, (Thu S06)14:00 Nakagawa, Shogo, (Mon S04)16:00, S19-008 Nakata, Kazuya, (Mon S11)18:20 Nakata, Kou, (Mon S04)16:00 Nakauchi, Ryoga, S06-038 Naoi, Katsuhiko, (Mon S07)14:00 Napporn, Teko, S06-037, (Thu S06)14:00 Nara, Hiroki, S01-017, S05-021 Narangoda, Praveen Vidusha, (Fri S06)10:10 Nassr, Abu Bakr Ahmed Amine, (Tue S15)14:40 Nation, Leah, (Tue S05)17:40 Natsui, Keisuke, (Mon S11)18:20, (Tue S11)16:40 Nava, José Luis, (Mon S12)09:50, (Mon S12)17:40, S12-024, S12-026 Nava Montes de Oca, Jose Luis, S12-013 Navarro, Freddy, (Tue S14)15:00 Navarro Hernández, Carla, S01-010 Navarro, Vicente, S12-027 Nayak, Simantini, (Thu S15)15:20 Nazar, Linda, (Tue S05)17:40 Nazaruk, Ewa, S03-002, (Thu S04)15:40 Nebel, Roman, S19-031 Nechache, Aziz, (Fri S06)11:10 Negishi, Yuichi, (Mon S16)16:40 Neira, Karinna, (Mon S11)17:40 Nelayah, Jaysen, (Mon S06)17:00, (Wed S15)10:10 Nemani, Pavan, S05-034 Nemcova, Aneta, (Mon S10)15:00 Neofytidis, Charalampos, (Fri S06)11:50 Neophytides, Stylianos G., (Mon S06)14:40, (Thu S06)15:00 Nerimetla, Rajasekhara, (Thu S04)16:00 Nesic, Srdjan, (Tue S10)18:00 Neto, Antônio, (Tue S10)14:20 Neugebauer, Sebastian, (Fri S06)10:10 Neukermans, Sander, (Mon S02)09:50 Neupane, Shova, (*Thu S08*)15:20 Newman, Roger, (Wed S08)10:10 Neyerlin, K.C., (Fri S08)09:50 Ng, How Yong, (Thu S06)15:20 Ngema, Xolani Terrance, (Mon S01)15:20 Nguyen, Cao Cuong, S15-003 Nguyen, Dinh An, (Thu S17)14:40 Nguyen, Linh, (Thu S15)17:20 Nguyen, Nhat Truong, (Fri S08)11:50, S11-032 Niakolas, Dimitrios, (Fri S06)11:50 Nicholson, Aaron, (Mon S02)16:00 Nieciecka, Dorota, (Thu S03)15:40,

(Fri S03)11:10

Niescioruk, Anna, (Thu S03)15:40

Nikolaev, Anton, (Mon S04)18:20 Nilsson, Anders, (Tue S15)18:20 Ning, Wei, S11-038 Niroula, Jinesh, S03-013, (Thu S04)16:00 Nishida, Kosuke, S04-006, S06-038 Nishida, Tetsuro, (Tue S05)09:30 Nishikawa, Kei, (Tue S05)09:30 Nishiki, Yoshinori, S06-024 Nitta, Koji, S05-024, (Tue S09)14:00 Niu, Yubiao, (Tue S16)17:00 Nkosi, Duduzile, (Mon S01)09:50, S11-037 Nock, Volker, S02-008 Noël, James, (Mon S18)09:30, S10-011 Noel, Vincent, (Thu S04)15:00 Nogala, Wojciech, (Tue S09)17:40 Noguchi, Hidenori, (Tue S05)15:40 Noguer, Thierry, (Thu S11)09:50 Nohira, Toshiyuki, S09-002, (Tue S09)14:00 Nojabaee, Maryam, (Fri S15)10:10 Normile, Stanley, S19-012 Notten, Peter, (Thu S17)09:30 Nourani, Mahnaz, (Thu S05)09:50, (Fri S05)11:30 Novak, Petr, (Mon S05)15:00, (Tue S05)18:20 Noworyta, Krzysztof, (Thu S04)15:20 Nsabimana, Jacques, S04-015 Numata, Koichi, (Mon S05)17:40 Nurpeissova, Arailym, S05-032 Nørskov, Jens K., (Wed S15)09:50 Ó Conghaile, Peter, (Tue S04)18:20 O'Mullane, Anthony, (Mon S19)17:40 O'Riordan, Alan, (Mon S01)10:10 Oborska, Sylvia, (Thu S04)15:20 Obrovac, Mark N., (Tue S05)18:20 Ochiai, Tsuyoshi, S03-005, (Tue S16)15:40, (Thu S12)17:00 Ochiai, Tuyoshi, (Thu S11)15:00 Odabas, Zafer, S19-021 Odgaard, Madeleine, (Mon S06)09:30 Oduncu, Emre, S19-028 Oezaslan, Mehtap, (Mon S06)16:40 Ogle, Kevin, S08-001, (Mon S10)14:00, (Tue S10)14:40, (Tue S10)15:40 Ogunlesi, Modupe, (Tue S04)09:30 Ogura, Kazuya, S06-015 Oh, Seokjoon, (Thu S15)17:00, (Fri S11)11:30 Oh, Seung M., S11-015 Oh, Youngho, S05-030

Oiye, Erica, (Mon S01)18:00 Okada, Yohei, (Thu S13)14:40 Okiei, Wesley, (Tue S04)09:30 Okuda-Shimazaki, Junko, (Wed S04)09:30 Olasunkanmi, Lukmon, S19-017 Oleinick, Alexander, (Thu S17)18:00,

S17-003

Oliveira, Fernando, S02-005, S02-006 Oliveira, Raquel, S02-007, (Tue S02)10:10 Oliveira-Brett, Ana Maria, (Thu S04)10:10 Oll, Ove, (Tue S15)16:40 Olmos, Jose Manuel, (Mon S19)17:20,

(Thu S17)17:20 Olorundare, F.O. Grace, S11-037

Olu, Pierre-Yves, (Thu S06)10:10 Olvera Vargas, Hugo, (Thu S12)10:10, (Thu S12)15:20 Omasta, Travis, (Fri S06)09:50

Ondok, Róbert, (Thu S11)14:00 Onnerud, Per, (Mon S05)15:40 Onuma, Hiroo, (Fri S05)11:50 Opallo, Marcin, S02-004, (Mon S11)09:50, (Tue S09)17:40, S16-009 Opila, Elizabeth, (Tue S18)17:40 Oppedisano, Daniel, (Thu S11)17:40 Orazem, Mark, (Tue S12)09:50, (Thu S18)10:10, (Thu S03)15:00 Orellana, Walter, (Mon S11)17:40 Orfino, Francesco, (Thu S06)14:00 Orman, Efe Baturhan, S19-021 Ornelas, Isabel M., (Tue S16)14:40 Ortega, Eduardo, S11-039 Ortega-Borges, Raul, (Mon S09)17:00 Osaka, Tetsuya, S01-017, S05-021 Oshima, Yoshifumi, (Tue S09)15:20 Osial, Magdalena, S09-005 Ostojic, Nevena, (Mon S16)17:40 Ostric, Adrian, (Mon S14)15:20 Ota, Ken-ichiro, S06-037 Otani, Kyohei, (Mon S10)14:20 Otani, Tomohiro, S09-002, (Thu S05)16:40 Othman, Ali, S12-025 Otsuka, Satoshi, S05-016, (Thu S05)14:40 Ou, Liwei, S10-006 Ou Yang, Liang Yueh, (Tue S18)16:00 Oudriss, Abdelali, S10-012 Oukali, Ghenima, (Tue S07)15:40 Oularbi, Larbi, (Thu S11)16:00 Ounnunkad, Kontad, (Mon S01)15:20 Ouyang, Tian, (Fri S11)09:30 Owen, John, (Tue S05)17:20 Oyama, Munetaka, (Thu S11)17:00 Ozdemir, Elif, S19-013 Ozga, Piotr, S10-004 Ozkan, Umit, (Fri S06)10:50 Ozkaya, Ali Riza, S19-021, S19-022 Ozoemena, Kenneth Ikechukwu, (Thu S06)09:50

Pachchigar, V., (Mon S19)16:00 Padelford, Jonathan, (Mon S16)15:40 Paidar, Martin, S06-007, S06-031, (Tue S06)18:20, (Thu S06)14:40, S12-009 Pailleret, Alain, (Mon S11)09:30, (Tue S04)17:00 Paiva, Suely S.M., S12-028 Paixão, Thiago, (Mon S18)15:20, (Mon S19)18:00, S19-005, S19-006 Palacin, M. Rosa, (Tue S05)15:00 Palchetti, Ilaria, (Tue S11)10:10 Palin, Emma, (Mon S15)14:00 Paljk, Tina, (Fri S05)10:50 Pan, Shanlin, (Mon S14)15:00 Pan, Yue, S05-019 Pancrazio, J., S03-009 Pande, Vikram, (Wed S05)09:50 Pandey, Gaind P., (Thu S05)15:20 Pandey, Tara, (Thu S06)16:00 Pang, Hao-Wei, (Wed S09)10:10 Pang, Quan, (Tue S05)17:40 Pang, Rang, (Tue S14)17:20 Pant, Lalit M., (Thu S17)15:00 Paolucci, Francesco, (Mon S14)09:30, (Mon S14)15:20, (Tue S11)14:40, (Thu S03)17:40 Papaiconomou, Nicolas, (Mon S12)14:20 Papasizza, Marco, (Tue S15)17:20

Papini, Anna Maria, S03-015 Paramaconi, Rodriguez, (Mon S11)15:20 Parfenov, Evgeny, (Fri S15)11:10 Parimalam, Bharathy, (Mon S05)14:40 Park, Byung June, S11-003 Park, Joong Sun, (Thu S05)17:00 Park, Kwangjin, (Wed S15)09:30 Park, Mijung, (Tue S12)17:40 Park, Min-Sik, S05-003 Park, Seonhwa, S01-004, S01-005 Park, Sung Jin, (*Tue S16*)17:00 Parker, Marybeth, (Mon S10)16:40 Parkinson, Dilworth, (Tue S06)15:40, Paschkewitz, Timothy, (Mon S18)09:50 Passerini, Stefano, (Mon S05)09:50, (Tue S05)15:00 Pastore, Tommaso, (Mon S10)18:20 Pastrian, Fabian, (Tue S16)15:00 Pasturel, Alain, (Mon S06)17:40 Pattadar, Dhruba, (Tue S16)09:30 Patzauer, Maximilian, S19-004 Pauliukaite, Rasa, (Tue S07)18:00 Pauwels, Danny, (Mon S02)09:50 Pavlicek, Ryan, (Mon S06)09:30 Pavone, Michele, (Tue S05)17:20 Payen, Christophe, (Mon S07)14:00 Payne, Martin, S05-013 Pebere, Nadine, (Mon S10)14:40, (Mon S10)17:40, (Tue S10)09:50 Peebles, Cameron, S05-011 Peipmann, Ralf, (Mon S09)14:00, (Mon S09)15:20 Peixoto, N., S03-009 Pekala, Marek, (Tue S14)09:50 Peled, Emanuel, S05-020, (Wed S05)10:10 Pelicci, Pier Giuseppe, (Thu S03)17:40 Peljo, Pekka, S09-003, (Mon S15)15:00, (Tue \$16)14:20, (Fri \$05)10:10 Peng, Hai-Jung, (Mon S05)15:00 Peng, Jing, (Fri S15)11:30 Peng, Xiong, (Fri S06)09:50 Peng, Zhangquan, (Thu S05)14:00 Penkauskas, Tadas, (Tue S04)15:40 Penner, Simon, (Thu S11)17:20 Pereira, Carlos, S09-004, (Mon S09)15:00 Pereira, Maria Carmo, (Mon S04)15:40 Pereira, Mariane P., (Thu S11)10:10 Pereira, Nuno M., (Mon S09)15:00 Pereira-Ramos, Jean-Pierre, (Tue S05)15:20 Perera, Rukshan, S16-010 Pérez Bueno, José de Jesús, S12-008 Pérez Gallent, Elena, (Tue S15)14:20 Perez Jimenez, Ana Isabel, (Tue S14)16:00 Pérez, José Fernando, S12-020 Pérez Junquera, Alejandro, (Tue S01)18:00 Pérez, Tzayam, S12-026 Perez-Page, Maria, (Thu S06)10:10 Peroff, Alex, (Mon S18)09:50 Peroni, Elisa, S03-015 Perova, Tatiana S., (Thu S06)14:40 Perrot, Hubert, (Tue S04)17:00 Perry, David, (Tue S16)14:40 Perry III, Albert, S04-018, (Wed S04)10:10 Perry, Mike L., (Thu S17)15:00 Perujo Holland, Noemi, S19-029 Pesaran, Ahmad, (Mon S05)15:40 Peter, Jörg, (Thu S04)17:40

Peter, Strasser, (Tue S15)16:40

Peters, Dennis, (Thu S13)16:40

Peters, Jonas C., (Thu S06)17:20 Peterson, Andrew, (Wed S15)09:50, (Thu S17)18:20, (Fri S17)09:50 Petronella, Francesca, (Tue S11)10:10 Petterson, Lars, (Tue S15)18:20 Pfaender, Norbert, (Fri S11)09:30 Phadke, Gayatri, (Fri S03)11:30 Philippe, Bertrand, (Tue S05)14:00 Pibaleau, Baptiste, (Mon S07)17:40 Pierce, Michael, (Thu S08)15:40 Pifferi, Valentina, (Tue S11)10:10, S11-034 Pinault, Mathieu, (Mon S07)17:40, (Mon S07)18:20, (Tue S07)17:40 Pineda, Fabiola, S10-005 Pingarrón, José Manuel, S03-014, (Tue S01)17:00, (Thu S03)17:00 Pint, Bruce, (Tue \$10)14:00 Pires, Cléo, S06-019 Piro, Benoit, (Thu S04)15:00 Pita, Marcos, (Mon S04)17:40 Plaxco, Kevin, (Thu S04)16:40 Plumeré, Nicolas, (Mon S04)14:40 Poizot, Philippe, (Fri S05)12:10 Polaci, Luis Antonio, (Thu S11)15:20 Policar, Clotilde, S19-029 Polo, Federico, (Mon S14)14:40 Ponce de Leon, Carlos, (Tue S09)15:00 Ponrouch, Alexandre, (Tue S05)15:00 Popovic, Jelena, S05-014, (Fri S15)10:10 Porada, Slawomir, (Mon S12)18:00 Porcarelli, Luca, S05-006 Portenkirchner, Engelbert, (Tue S15)18:00, (Thu S11)17:20 Powless, Amy, (Mon S02)16:00 Pozo-Gonzalo, Cristina, (Tue S09)16:40 Prado Arce, Luz Andrea, S12-030 Prasher, Ravi, (Mon S05)16:40 Prato, Maurizio, (Mon S14)15:20 Premaratne, Gayan, S03-013, (Thu S04)16:00 Prendergast, David, S05-035 Presser, Volker, (Tue S07)10:10, (Tue S11)18:00 Preston, Victoria, (Thu S03)16:40 Price, Stephen, (Tue S15)14:40 Prieto, Francisco, S03-003, (Mon S15)18:20, (Tue S18)17:20 Prins, Amber, *S05-007* Prodi, Luca, (Mon S14)09:30 Pstrus, Janusz, S10-004 Pszona, Maria, (Thu S04)15:20 Pulpytel, Jerome, (Tue S04)17:00 Puszko, Anna, (*Thu S03*)15:40 Puthiyapura, Vinod Kumar, (Tue S15)14:40

#### Q

Qi, Liming, (Mon S14)14:00 Qi, Wenjing, (Mon S14)14:00 Oi, Yue, (Tue S05)17:40 Qian, Shaoyi, S05-034 Qin, Yihong, (Tue S07)18:20 Qu, Lina, S05-012 Quade, Antje, (Mon S06)16:40 Ouan, Linh, (Tue S14)15:40 Quarez, Eric, (Fri S05)12:10 Quast, Thomas, (Thu S04)14:40 Quian, Yanping, (Thu S11)14:00 Quinson, Jonathan, (Mon S06)16:40 Quinta-Ferreira, Maria E., (Thu S12)16:40 Quinta-Ferreira, Rosa M., (Thu S12)16:40

R Rabasco, Antonio M., S03-003 Raccichini, Rinaldo, (Tue S05)17:20 Radzevic, Aneta, (Tue S07)18:00 Rähn, Mihkel, (Fri S06)10:10 Raes, Marc, (Mon S10)18:00 Raffy, Stéphane, (Thu S12)16:00 Raghavan, Vijaya, (Tue S04)16:40 Raheem, Kevin, S15-013 Rahn, Björn, (Mon S15)16:00 Raiman, Stephen, (Tue S10)14:00 Rajeshwar, Krishnan, (Wed Plenary)08:15 Raju, Kumar, (*Thu S06*)09:50 Ramalho, Maria João, (Mon S04)15:40 Ramani, Dilip, (Thu S06)14:00 Ramaswamy, Nagappan, (Wed S06)10:10 Ramirez, Andres, S11-039, S11-039 Ramirez-Rosales, Daniel, S05-009 Ramos-Sánchez, Guadalupe, S05-009 Rampazzo, Enrico, (Mon S14)09:30 Ranjbar-Sahraie, Nastaran, (Fri S06)09:30, (Fri S06)10:10 Ranjbari, Alireza, S11-028 Rao, K. Ramachandra, (Fri S06)09:30 Rapino, Stefania, (Mon S14)15:20, (Thu S03)17:40 Raschitor, Alexandra, (Mon S12)18:20 Rastgar, Shokoufeh, S11-030 Rathuwadu, Nadeesha, (Tue S01)16:00 Ratso, Sander, (Fri S06)11:50 Rauscher, Thomas, S06-007 Ravandeh, Mehdi, (Tue S04)10:10 Raymundo-Pinero, Encarnacion, (Tue S07)15:40 Rebere, Christelle, (Tue S10)18:20 Rebiś, Tomasz, (Mon S11)15:40, S11-019 Recio, Javier, (*Thu S11*)15:40 Redondo, Edurne, (Tue S07)14:40 Rees, Neil V., S06-004, (Tue S06)14:20, (Tue S16)17:00 Reid, Gill, (Mon S19)14:20 Reikowski, Finn, (Mon S15)16:00, S19-030 Ren, Baiyu, (Thu S11)17:40 Ren, Bin, S04-015, (Tue S15)14:00, S15-002 Ren, Jiawen, (Tue S12)10:10 Ren, Yinying, *S12-033* Renault, Christophe, (Tue S15)15:20, S16-001 Renner, Frank Uwe, S05-015, (Thu S08)15:20 Renner, Julie, (Tue S18)15:40, S18-001 Rensmo, Hakan, (Tue S05)14:00 Repassky, Russell, (Mon S10)16:40 Reshetenko, Tatyana, (Thu S06)14:20 Reviejo, A. Julio, (*Tue S01*)17:00 Reyes-Carmona, Alvaro, (Wed S06)09:50 Rezazadeh, Shaghayegh, (Tue S05)14:40 Ribeiro da Silva, Djalma, (Thu S12)15:00, S12-028 Ribeiro, Maria Fernanda, (Mon S01)18:00 Richter, Lee, (Tue S18)16:00 Riede, Jens Christian, (Tue S12)18:20 Rimoldi, Luca, S11-034 Ritslaid, Peeter, (Mon S19)10:10 Ritzert, Nicole, (Mon S15)09:30, (Mon S01)16:00 Rives, Bertrand, (Mon S10)14:40, (Tue S10)09:50 Rivière, Lisa, (Mon S10)17:40 Rizzi, Gian Andrea, (Fri S06)09:50, S16-005

Rizzo, Fabio, (Mon S14)14:40 Rizzo, Simona, (*Tue S11*)15:40, (Thu S13)15:20, S13-006 Robb, Alex, (Thu S03)16:40 Robles, Irma, (Mon S12)17:00 Robotti, Marco, S12-017 Rochefort, Dominic, (Mon S09)14:40, (Tue S07)14:00, S11-020 Rodenas Torralba, Tania, (Fri S11)09:30 Rodrigo, Manuel Andres, (Mon S12)18:20, (Thu S12)15:40, S12-020, S12-027 Rodríguez, Israel, S12-026 Rodriguez, Paramaconi, (Tue S15)15:20, Rodriguez-Garcia, Barbara, (Wed S06)09:50 Rodriguez-Lopez, Joaquin, (Mon S18)14:40, (Mon S11)15:20, (Mon S11)18:00, (Tue S11)14:00, (Tue S11)17:20, S11-016 Röder, Fridolin, (Thu S17)14:00, (Thu S17)14:20 Roelands, Mark, S13-003 Roemelt, Michael, (Fri S13)11:30 Rogers, Michelle, (Mon S02)15:20 Rohan, James, (Mon S01)10:10, (Thu S05)15:40 Rohani, Ali, (Fri S11)10:50 Rohnke, Marcus, (Tue S09)17:00 Rojas-Carbonell, Santiago, S04-017 Roldan Cuenya, Beatriz, (Fri S11)11:30 Romero, Henry, (Mon S06)09:30, (Fri S06)11:10 Romero, Valeria, (Fri S05)10:10 Rontzsch, Lars, S06-007 Rosales, Mario, (Mon S12)09:50 Rosas-Hernández, Alonso, (Fri S13)11:30 Rosenstein, Jacob, S16-010 Ross, Philip, (Mon S05)10:10 Rossmeisl, Jan, (Mon S06)16:40, (Thu S06)09:30, (Fri S06)11:10, S19-031 Rost, Marcel J., (Mon S15)15:20 Rother, Gernot, (Mon S15)14:40 Rouch, Jean-Christophe, (Thu S12)16:00 Roue, Lionel, (Mon S09)14:40 Roy, Aaron, S06-016 Roy, Claudie, (*Thu S06*)15:20 Rubinson, Judith Faye, S03-009, (Tue S18)09:30 Rueda Rueda, Manuela, S03-003, (Mon S15)18:20, (Tue S18)17:20 Ruediger, Andreas, (Mon S15)14:20 Ruge, Martin, (Mon S15)16:00 Ruggeri, Irene, (Tue S05)16:00 Ruhlmann, Laurent, (Thu S11)14:00, S16-012 Ruiz, Domingo, (Tue S14)15:00 Ruiz-Valdepeñas Montiel, Víctor, (Tue S01)17:00, (Thu S03)17:00 Rusling, James, (*Tue S02*)09:50, (Tue S16)10:10, (Fri S03)11:30 Russell, Andrea, (Tue S18)10:10, (Tue S15)14:40, (Tue S16)15:20, (Fri S06)09:50 Rutkowska, Iwona A., (Mon S18)17:20, (Thu S15)10:10 Rutledge, Gregory, S12-033 Ryan, Bernard, S15-013 Ryder, Karl, (Mon S15)14:00, (Mon S19)15:00 Ryu, Hye-Min, S11-006 Ryu, Ji Heon, *S11-015* 

S Sa, Young Jin, (Thu S06)16:40 Saar, Rando, (Fri S06)11:50 Sabarirajan, Dinesh C., (Tue S06)15:00, S19-012 Sabuncu, Sinan, (Mon S04)18:20 Sacci, Robert, (Mon S15)14:40 Sacre, Nicolas, (Mon S15)14:20 Sáez, Cristina, (Thu S12)15:40, S12-020, S12-027 Safrany Renard, Marianne, (Tue S05)15:20 Sahoo, Malaya Kumar, (Mon S07)15:00 Saidi, Imen, (*Thu S13*)17:20 Sainio, Sami, (Fri S03)09:50 Sajiad, Sved, (Thu S06)14:20 Sakai, Shoichiro, (Tue S09)14:00 Sakairi, Masatoshi, (Mon S10)14:20 Sakamaki, Kenji, (Mon S19)09:30 Sakashita, Wakana, (Mon S19)09:30 Sakuma, Daichi, S05-016 Salager, Elodie, (Tue S07)15:40 Salaj-Kosla, Urszula, (Tue S04)17:40 Salanne, Mathieu, (Tue S15)15:00 Salari, Maryam, (Thu S04)17:20 Salazar, Mercedes, S12-024 Salazar, Ricardo, S01-009, S01-012, (Thu S12)17:20, S12-016, S12-029 Sales Solano, Aline Maria, S12-022 Saliba, Michael, S07-011 Salihoglu, Omer, (Fri S06)11:30 Sammelselg, Väino, (Mon S19)10:10, (Fri S06)10:10 Samper, Isabelle, (Mon S02)15:20 Samu, Gergely, (Mon S11)15:00 Sánchez-Fernández, León, (Fri S03)09:30 Sanchez-Ramirez, Nedher, (Tue S09)15:40 Sanchez-Sanchez, Carlos, (Mon S10)14:00, (Tue S09)17:20 Sánchez-Tirado, Esther, S03-014 Sancy, Mamié, (Fri S03)11:50 Sandoval, Miguel, (Mon S12)17:40 Sanghavi, Bankim, (Fri S11)10:50 Sannicolo, Francesco, (Tue S11)15:40, (Thu S13)15:20 Sans, John, S05-013 Sanson, Nicolas, (Mon S01)15:20 Santamaria, Monica, (Mon S10)10:10, (Tue S11)17:00, S11-023 Santhiago, Murilo, (Thu S11)10:10 Santiago, Vilynette, (Thu S03)17:20 Santoro, Carlo, S04-014, S04-017, (Mon S07)10:10 Santos, Anyelle, S12-015 Santos, Elisama, S12-028 Santos, Mauro, S06-017, (Fri S11)11:50 Santos-Pena, Jesus, (Tue S05)15:40 Sanz Lobón, Germán, (Mon S01)17:20 Sapstead, Rachel, (Mon S15)14:00, (Mon S18)17:00 Saracco, Guido, S19-009 Sarapuu, Ave, (Fri S06)10:10 Sarasketa-Zabala, Elixabet, (Tue S05)16:40 Sarauli, David, (Wed S04)09:50 Sarodnik, Hannes, (Thu S06)16:00 Sarwar, Misbah, (*Fri S17*)10:50 Sasaki, Kotaro, (Tue S10)15:00, (Fri S08)11:10 Sasaki, Ryo, (Mon S10)14:20 Sato, Masataka, (Mon S19)09:30

Satterwhite-Warden, Jennifer, (Fri S03)11:30 Savall, Andre, S12-018 Savinell, Robert, S05-033, (Tue S12)14:00, (Wed S07)09:50, S15-005, S18-001 Savinova, Elena, (Tue S15)14:00, (Thu S15)09:30, (Thu S06)10:10 Saw, En Ning, S01-018, (Mon S01)15:00 Sawaguchi, Yuki, S06-024 Schaak, Raymond, (Tue S06)18:00 Schalenbach, Max, (Tue S06)18:00 Schammer, Max, (*Tue S09*)14:40, (Thu S05)17:00 Schazmann, Benjamin, (Tue S01)16:40 Schektman, Inna, S05-020, (Wed S05)10:10 Schenkendorf, René, (Thu S17)14:20 Scherer, Günther, (Wed S06)09:30, (Thu S15)14:40 Scherson, Daniel, S01-011, (Thu S18)09:30 Schille, Benjamin, (Thu S13)15:00 Schiller, Carl Albrecht, S05-005, (Fri S05)09:50 Schiller, Guenter, (Fri S06)11:10 Schlesinger, Orr, (Mon S04)18:00 Schloegl, Robert, (Thu S06)15:00 Schlörb, Heike, (Mon S02)18:00 Schlumpberger, Sven, (Mon S12)16:40 Schmidt, Oke, (Thu S17)14:20 Schmidt, Thomas, (Tue S06)09:30 Schmitt, Tobias, (Thu S05)17:00 Schmitz, Peter, (Tue S09)17:00 Schmuki, Patrik, (Fri S08)11:50, S11-032 Schnaidt, Johannes, (Thu S15)17:20 Schneider, Michael, (Mon S19)15:20 Schneider, Oliver, S05-027, S09-001, (Mon S09)15:20 Schoenfisch, Mark, (Thu S03)09:30 Schoetz, Theresa, (Tue S09)15:00 Schorr, Noah, (Tue S11)14:00, (Tue S11)17:20 Schröder, Daniel, (Tue S09)17:00 Schubert, Nora, (Mon S19)15:20 Schuchmann, Kai, (Mon S04)14:00 Schuh, Jonathon, S05-034 Schuhmann, Wolfgang, (Mon S14)10:10, (Thu S03)14:20, (Thu S04)14:40, (Thu S06)15:40, (Thu S06)17:00 Schulz, Burkhard, S04-013, (Wed S04)09:50 Schwämmlein, Jan, (Fri S06)10:10 Schwartz, Daniel, S12-001 Scott, Lawrence T., (Tue S11)14:40 Sebok, Bela, (Thu S06)15:20 Seca, Helga F., (Thu S12)16:40 Segel, B., (Wed S07)09:50 Segrado, Francesco, S11-034 Seidl, Lukas, S05-027, S09-001, (Mon S09)15:20 Seiffarth, Gerda, (Thu S06)14:40 Sek, Slawomir, (Tue S04)14:40, (Tue S04)15:00 Sekar, C., S03-006 Seland, Frode, (*Tue S06*)10:10 Sella, Catherine, S02-007, S03-015, (Mon S02)17:20, (Tue S02)10:10 Selt, Maximilian, S13-004 Selva, Thiago, *S19-005* Semeano, Ana, S11-001 Semerad, Robert, (Fri S06)11:10 Seo, Jeongwook, S01-004, S01-005 Seo, Seung-Woo, (Wed S15)09:30

Seong, Ho Eun, (Mon S16)14:20

Seow Chavez, Madelaine, S04-018, (Wed S04)10:10 Sepúlveda, Selene, (Fri S03)09:30 Seraphim, Patricia, S11-029 Sereda, Olga, S15-016 Serov, Alexey, S04-014, S04-017, S04-018, S06-016, (Mon S06)09:30, (Mon S07)10:10, (Wed S04)10:10, (Fri S06)11:10, S19-012 Seymour, Ian, (Mon S01)10:10 Seznec, Vincent, (Wed S05)09:30, (Fri S05)11:10 Sha, Rinky, (Mon S07)18:00 Shahnavaz, Zohreh, (Thu S11)09:30 Shaplov, Alexander S., S05-006 Sharafeldin, Mohamed, (Tue S02)09:50, (Fri S03)10:10 Sharma, Pivush, (Thu S04)15:20 Shatla, Ahmed, S15-008 Sheets, Ben, (Tue S12)14:40 Sheldon, Brian, S05-038, (Tue S05)17:40, (Fri S05)09:30 Shen, Chunjian, (Thu S15)15:00 Shen, Jinyou, S12-014, S12-031 Shen, Liuliu, S02-010 Shen, Mei, (Thu S04)09:50 Shen, Min, (Tue S02)09:50, (Fri S03)10:10 Shen, Yuhua, S11-008 Shen, Zexiang, (Tue S12)17:00 Sheng, Tian, (Tue S15)16:00 Sherstneva, Natalia, S15-014 Shi, Jay, (Mon S05)15:40 Shi, Kang, S10-006, S19-027 Shi, Shan, (Thu S08)17:20 Shi, Yi, (Thu S04)14:00 Shiku, Hitoshi, S03-007 Shimizu, Masahiro, S05-028 Shimizu, Yusuke, (Mon S05)15:20 Shimoyama, Iwao, S06-008 Shin, Jeonghwa, S01-005 Shin, Woonsup, S03-008, (Tue S12)17:40, (Thu S03)15:20 Shin, Youn Gyeong, (Tue S10)10:10 Shitanda, Isao, S04-004, S04-005, S04-007 Shnier, Adam, (Thu S15)14:40 Shoesmith, David, S10-011, (Tue S10)15:20 Shoji, Takao, (Thu S13)14:40 Sholin, Mark, S05-005, (Fri S05)09:50 Shrivastava, Aniruddh, (Mon S12)18:00 Shu, Hu, S11-026 Shul, Galvna, (Mon S09)09:30 Shum, Andrew, (Tue S06)15:40 Si, Pengchao, (Fri S08)12:10 Siepenkoetter, Till, (Tue S04)17:40 Sieradzki, Karl, (Wed S08)09:30 Sievers, Gustav, (Mon S06)16:40 Sievert, Brigitta, (Thu S05)17:40 Siinor, Liis, S09-005 Sil, Anjan, (Wed S05)10:10 Silva, A. Fernando, S09-004. (Mon S09)15:00 Silva, Daniela, (*Fri S03*)11:50 Silva de Carvalho, Flávio, S01-016 Silva, José, (Mon S19)18:00, S19-006 Silva, Thaissa, (Tue S14)16:40 Silva, Tiago A., (Mon S01)17:40 Simões, Fábio, (Thu S11)15:20 Simon, Patrice, (Mon S07)14:40 Simone, Virginie, S05-025

Simonin, Loic, S05-025

Sinclair, Nicholas, S05-033 Sinev, Ilya, (Thu S06)17:00 Singh, Prabhakar, S06-029 Singh, Santosh K., (Wed S03)09:50 Singh, Vikram, (Fri S06)10:50 Singh, Vini, S03-013 Singh, Yadvinder, (Thu S06)14:00 Single, Fabian, (Thu S17)10:10 Sirés, I., (Thu S12)17:20, S12-024 Skeldon, Peter, (Mon S10)15:00 Skladal, Petr, (*Tue S04*)09:50 Skrypnik, Valentyn, (Tue S07)14:00 Slim, Cyrine, *S19-029* Sliusarenko, Oleksii, (Thu S17)18:00 Slupska, Monika, S10-004 Smirnov, Evgeny, (Mon S15)15:00 Smith, David, (Mon S19)14:20 Smith, Emma, (Mon S15)14:00 Smith, Graham, (Tue S16)15:20 Smith, Kyle, S05-034, (Mon S12)18:00 Smith, Scott, (Tue S15)15:40 Smotkin, Eugene, S06-032, (Tue S01)17:20 Snedden, Alan, (Mon S12)16:00 Soares Lima França, Jannice, S19-015 Soares, Vinícius, (Thu S11)15:20 Soavi, Francesca, S04-014, S07-011, (Mon S07)10:10, (Tue S05)16:00 Sobrino, Jean-Michel, S10-012 Soda, Narshone, (Mon S01)09:50 Sode, Koji, (Wed S04)09:30 Soergel, Seniz, (Fri S05)09:50 Sohrabpour, Zahra, (Mon S18)16:00 Sojic, Neso, (Mon S14)17:40 Solanki, Dhaivat, (Fri S08)10:10 Soldà, Alice, (Mon S14)15:20, (Thu S03)17:40 Soliveri, Guido, S11-034 Sollá-Gullón, José, (Tue S12)15:00, (Tue S09)17:20, S19-033 Son, Ji-Won, (Fri S06)12:10 Son, Semi, (Thu S03)15:20 Sone, Yoshitsugu, (Thu S05)14:40 Song, Congying, S06-018 Song, Hyun-Kon, (*Tue S05*)14:00 Song, Juhyun, (Thu S17)16:00 Song, Jun-Ho, S05-003 Soon, Jiyong, S11-015 Sosa Domínguez, Adrián, S12-008 Sosa-Ferreyra, Carlos Francisco, (Fri S03)09:30 Sosnowska, Marta, (Thu S04)15:20 Sotiropoulos, Sotiris, (Tue S16)14:00 Soto, J.P., S11-018 Sotomayor-Villezcas, Viridiana, (Fri S03)09:30 Sougrati, Moulay-Tahar, (Fri S06)09:30 Soulsby, Lachlan, (Tue S14)15:20 Soutrel, Isabelle, (Thu S13)17:20 Souza, Matheus, S06-019 Spanos, Ioannis, (Thu S06)15:00 Spassov, Tony, (*Thu S08*)14:40 Spinner, Neil, (*Mon S18*)09:50 Spohr, Eckhard, (Wed S17)09:30 Srinivasan, Jay, (Mon S10)16:40 Stach, Eric, (Fri S06)09:30 Stafford, Gery, (Mon S09)15:40 Stamatin, Serban, (Thu S06)14:40, (Fri S06)09:30 Stefano, Passerini, (Fri S05)09:30 Stein, Nicolas, (Tue S09)09:30

Steiner, Dominik, (Tue S15)18:00 Steinke, Nina-Juliene, (Mon S15)14:00 Stephan, Odile, (Thu S17)17:00 Stephens, Ifan E.L., (Wed S15)09:50, (Thu S06)15:20, (Thu S06)17:00, S15-010 Stephenson, Scott, S05-013 Stephenson, Thomas, (Fri S06)11:10 Stepkowski, Tomasz, (Tue S19)09:50 Sternad, Martin, (Tue S05)18:00 Stettner, Jochim, (Mon S15)16:00, S19-030 Stevens, Molly, (Tue S19)09:30 Steyer, Philippe, (Tue S10)18:20 Stickney, John, (*Tue S16*)16:40 Stievano, Lorenzo, (Fri S06)09:30 Stimming, Ulrich, S05-027 Stockmann, T. Jane, (Mon S16)18:00 Stojek, Zbigniew, (Wed S11)10:10 Storm, Wesley, (Thu S03)09:30 Strasser, Peter, S06-005, S06-028, (Thu S06)16:00, (Thu S06)16:40 Strauss, Mathias, (Thu S11)10:10 Strawski, Marcin, (Wed S11)10:10 Street, Jason, (Mon S05)15:40 Striccoli, Marinella, (Tue S11)10:10 Stricker, Elizabeth, S15-005 Stringer, Bradley, (Tue S14)15:40 Strobl, Jonathan, S01-011 Strunz, Werner, S05-005, (Fri S05)09:50 Stulp, Simone, (Mon S19)09:50 Su, Chun-Hao, (Tue S04)18:00 Su, Fangyuan, (Tue S07)16:00 Su, Junwei, S11-021 Su, Liang, (Thu S05)15:40 Su, Wei-Nien, (*Tue S05*)17:00, (Thu S11)15:20 Su, Xiao, (Tue S11)18:20, (Fri S11)12:10, S12-032 Su, ZhangFei, (*Tue S04*)15:20 Subramanian Parimalam, Bharathy, S12-011, S15-003 Suda, Atsushi, S03-007 Sugihara, Kazunori, S04-008 Sugimoto, Wataru, (Tue S06)09:50 Sumanasekera, Gamini, (Thu S11)09:30 Sun, Chia-Liang, (Tue S04)18:00 Sun, Dennis, *S06-039* Sun, Du, (Tue S06)14:00 Sun, Hongwei, S11-021 Sun, Li, (Mon S18)09:50 Sun, Ruoheng, (Thu S05)15:00 Sun, Shi-Gang, S06-022, (Tue S15)16:00. (Thu S06)15:00, (Thu S06)15:40, (Fri S11)10:50, (Fri S11)11:50, S15-011, S16-011 Sun, Xiuyun, S12-031 Sunami, Shodai, S04-006 Sunde, Svein, (Tue S06)10:10 Sung, MinJae, S19-023 Sunkara, Mahendra, (Fri S06)09:30 Supur, Mustafa, (Tue S15)15:40 Surcin, Christine, (Thu S05)14:20 Surendranath, Yogesh, (Tue S15)18:00, (Thu S11)14:20, (Thu S11)16:40, (Thu S15)17:00, (Fri S11)11:30 Suroviec, Alice, (Tue S18)09:50 Susac, Darjia, S06-039 Susanto, Dieky, S05-022, S05-023 Sutter, Eliane, (Mon S10)16:00 Suvira, Milomir, (Mon S04)17:00

Suzuki, Kenta, S06-034 Suzuki, Seitaro, S03-005 Svendby, Jørgen, (Tue S06)10:10 Svihla, Vanessa, (Mon S18)15:40 Svir, Irina, (Thu S18)09:50, (Thu S17)18:00, S17-003 Swain, Greg, S10-007, (Tue S09)10:10. (Tue S14)17:40 Swami, Nathan, (Fri S11)10:50 Swiatek, Zbigniew, S10-004 Swider-Lyons, Karen, (Mon S06)14:00 Swiech, Olga, (Tue S19)09:50 Sygellou, Labrini, (Mon S06)14:40 Szczupak, Alon, (Mon S04)18:00 Szlezak, Monika, (Thu S03)15:40 Szunerits, Sabine, (Wed S03)09:50 Szuplewska, Aleksandra, (Thu S03)15:40 Tabarant, Michel, (Tue S10)14:40 Taberna, Pierre-Louie, (Mon S07)14:40

Tafen, De Nyago, (Mon S16)14:40 Tago, Shoko, S03-005, (Tue S16)15:40, (Thu S12)17:00 Taguchi, Tomitsugu, S06-008 Tahar Sougrati, Moulay, (Fri S06)10:10 Tai, Zhenyu, S11-038 Tak, Yongsug, *S05-030* Takada, Hayato, (Thu S11)15:00 Takahashi, Kento, (Tue S06)15:20 Takanohashi, Kazuhiro, (Tue S06)16:00 Takata, Morimasa, S05-017 Takeoka, Shun, (Wed S09)09:50 Tamirat, Andebet Gedamu, (Thu S11)15:20 Tamirisa, Prabhakar A., S05-038 Tammeveski, Kaido, (Mon S19)10:10, (Mon S11)14:40, (Fri S06)10:10, (Fri S06)11:50 Tan, Haiyan, (Mon S15)09:30 Tan, Kai-Jher, (Tue S11)18:20, (Fri S11)12:10 Tan, Yan-Yan, S15-001 Tanaka, Shiro, (Mon S06)18:20 Taner Camci, Merve, (Mon S15)10:10 Tang, Shi-Yang, (Mon S19)17:40

Tang, Yiping, S06-036, S11-035 Taniguchi, Shuichi, S05-016 Tanimoto, Keisuke, S06-040 Tao, N.J., (Tue S01)09:30 Tarascon, Jean-Marie, (Tue S15)17:40, (Fri S15)11:50 Tarnev, Tsvetan, (Thu S03)14:20 Tartakovsky, Boris, (Tue S04)16:40 Tasca, Federico, (Mon S11)17:40,

Tang, Shuai, S15-002

(Mon S11)17:40 Tateyama, Yoshitaka, (Tue S11)16:40, S15-015

Tawarayama, Hiromasa, (Thu S12)17:00 Taylor, Isaac, (Fri S03)10:50

Taylor, John, (Fri S03)11:30 Tchitchekova, Deyana, (Tue S05)15:00 Tealdi, Cristina, \$05-029 Teixeira, Marcos, S11-029, S19-001 Temiye, Edamisan, (Tue S04)09:30

Teng, Hsisheng, (Thu S05)17:40 Terai, Nozomi, S04-007

Terai, Takayuki, S06-008 Terauchi, Mayuko, S03-007 Terborg, Lydia, (Mon S05)10:10

Terrani, Kurt, (*Tue S10*)14:00 Terryn, Herman, (Mon S10)18:00 Testa, Cristian, (Mon S10)18:20 Testolin, Anna, (Tue S11)10:10 Thackeray, Michael, (Thu S05)17:00 Thiam, Abdoulaye, (Thu S12)17:20 Thiebaud, Laura, (Tue S09)09:30 Thiel, Julien, (Fri S12)09:30 Thind, Sapanbir, (Tue S12)15:40 Thirstrup, Carsten, (Mon S12)16:00 Thompson, Matthew, (Mon S15)14:40 Thompson, Stephen, (Tue S15)14:40 Thouin, Laurent, S02-007, S03-015, (Mon S02)17:20, (Tue S02)10:10 Thouvenin, Indira, (Wed S18)09:30 Tian, Na, (Fri S11)11:50, S15-011, S16-011 Tian, Wenda, S12-033 Tian, Zhao-Wu, S19-027 Tian, Zhong-Qun, S04-015, (Tue S14)17:20, \$15-001, \$15-002, \$15-004, \$15-006, S19-027 Tibaldi, Alexandra, (Thu S04)15:00 Timperman, Laure, (Tue S07)15:20 Tiruchirapalli Kumar Raj, Shruthi, S10-007 Tiwari, Aarti, (Fri S06)10:50 Tkalych, Alexander, (Fri S17)09:30 Todoroki, Naoto, S06-020 Toh, Chern Yi, (Thu S12)14:20 Tokranov, Anton, (Fri S05)09:30 Tokuda, Shoichi, S06-015 Tolmachev, Yuriy, S12-004, S15-016 Tominaka, Satoshi, S06-037, (Thu S06)14:00 Tomisaki, Mai, (Mon S11)18:20 Tomita, Kentaro, (Tue S05)15:40 Tong, Yujin, (Tue S15)14:40, S14-001 Tong, YuYe J., (Mon S06)16:00, (Tue S05)09:50, (Wed S15)10:10, (Thu S06)09:30, S11-024 Tonholo, Josealdo, (Tue S10)14:20

Torayev, Amangeldi, (Thu S05)14:20 Torrente-Rodríguez, Rebeca M., (Tue S01)17:00, (Thu S03)17:00 Torresi, Roberto M., (Mon S18)15:20, (Tue S09)15:40

Tosha, Takehiko, (Mon S04)16:00, S19-008 Toulc'Hoat, Joel, (Tue S07)15:20 Trabesinger, Sigita, (Mon S05)15:00 Tran, Mai, (Mon S10)16:00 Tran-Van, François, (Mon S07)17:40, (Tue S07)17:40

Tranchida, Giada, (Mon S10)10:10 Trask, Stephen, (Tue S05)10:10 Trellu, Clement, (Thu S12)16:00

Tremiliosi-Filho, Germano, (Tue S15)15:00, S19-015

Tribollet, Bernard, (Mon S10)14:00, (Mon S10)16:00, (Thu S18)10:10, (Thu S17)17:00 Tripkovic, Vladimir, (Thu S15)16:00

Trnkova, Libuse, (Tue S04)10:10 Tschulik, Kristina, S01-018, (Mon S01)15:00, (Fri S11)11:30

Tsou, Wan-Ting, S05-018

Tsuda, Tetsuya, S05-002, (Tue S09)15:20 Tsujimura, Seiya, S04-002, S04-005, S04-008

Tsujimura, Tomoyuki, (Fri S05)11:10 Tsukuda, Tatsuya, (Mon S16)10:10 Tsushima, Yuji, S05-028 Tsutsumi, Chikara, S06-034

Suzer, Sefik, (Mon S15)10:10

Turek, Thomas, (Tue S12)16:40, (Tue S12)18:20 Turmine, Mireille, (Mon S10)09:30, (Thu S11)16:00 Turren Cruz, Silver Hamill, S07-011 Turri, Stefano, S19-009

#### U

Uchida, Makoto, (Mon S06)15:40, (Tue S06)15:20 Uchida, Satoshi, (Mon S05)16:00 Ueda, Mikito, (Mon S09)17:20, (Tue S09)15:00 Uemura, Yuya, *S05-002* Uhlemann, Margitta, (Mon S02)18:00 Ujvari, Maria, (Mon S19)16:40 Ulgut, Burak, S05-040, S10-008, (Mon S15)10:10, S19-013 Ulissi, Ulderico, (Fri S05)09:30 Ulrich, Alexander, S11-001 Ulvestad, Andrew, (Thu S08)15:40 Umeda, Minoru, S05-016, S05-017, (Thu S05)14:40 Umekawa, Toyofumi, S06-038 Umeya, Yuki, (Thu S11)17:00 Umukoro, Eseoghene, (Fri S12)09:50 Un, Umran, S19-028 Unocic, Raymond, S15-005 Unwin, Patrick, (Tue S16)14:40 Uosaki, Kohei, (Tue S05)15:40 Upan, Jantina, (Mon S01)15:20 Urazbayev, Arshat, S05-032 Urbankowski, Patrick, (Tue S11)09:30 Urchaga, Patrick, (Tue S06)14:40 Ureta-Zañartu, Maria Soledad, S13-007, S13-008 Usmanov, Dilshadbek T., S01-013 Ustarroz, Jon, (*Tue S16*)14:40 Usui, Sayuri, (Mon S19)09:30 Uzundal, Can Berk, S05-040, S10-008,

(Mon S15)10:10, S19-013 Vagn Hogg, Thomas, (Wed S15)09:50, (Thu S06)17:00 Valenti, Giovanni, (Mon S14)09:30, (Mon S14)15:20, (Tue S11)14:40, (Thu S03)17:40 Valero-Vidal, Carlos, S05-035, (Mon S10)15:40, (Thu S11)17:20 Valincius, Gintaras, (Tue S04)15:40 Valle, Francesco, (Thu S03)17:40 Valov, Ilia, (Tue S11)17:00 Valtiner, Markus, (Fri S15)10:10 van Aken, Katherine, S07-003, (Mon S15)14:40 Van Doorslaer, Sabine, (Mon S02)09:50 Van Laethem, Dries, (Thu S17)15:40 Vanrenterghem, Bart, (Tue S16)14:00 Varenne, Anne, (Mon S02)17:40, (Tue S02)10:10 Varga, Andras, (Mon S11)15:00 Vargas, Eva, (Thu S03)17:00 Varnell, Jason, (Thu S06)17:20 Varzi, Alberto, (Fri S05)09:30 Vasconcelos, Joana M., (Thu S06)14:40 Vaz, Carlos, (Tue S05)18:20 Vázquez, Marcos, S03-003 Vázquez-Gómez, Lourdes, (Mon S11)16:40, (Wed S11)09:30

Vega, Marco, S13-008

Vegge, Tejs, (Thu S15)16:00 Velasco, Guillermo, S12-026 Venegas, Ricardo, (Thu S11)15:40 Venton, Jill, (Mon S01)14:00 Ventosa, Edgar, (Thu S06)15:40 Verdin, Baptiste, (Tue S06)17:40 Verhaven, Alexandra, S04-019 Verlato, Enrico, (Mon S11)16:40, (Wed S11)09:30 Verly, Rodrigo, S02-005 Vesely, Martin, S12-009 Vesztergom, Soma, (Mon S19)16:40 Viallet, Virginie, (Wed S05)09:30 Vicini, Juan, (Tue S12)10:10 Vidal, Jorge, *S12-029* Vidal-Iglesias, Francisco José, S19-033 Vieira, João P., (Thu S12)16:40 Vignal, Thomas, (Mon S07)18:20 Villagra, Angel, S11-028 Villaseñor, Jose, S12-027 Villevieille, Claire, (Mon S05)15:00, (Wed S11)10:10, (Thu S05)14:20 Vinogradov, Sergey, (Thu S03)16:40 Virya, Alvin, (Tue S07)16:40 Visbal, Heidy, (Fri S05)11:10 Viscardi, Guido, (Mon S15)17:40 Viswanathan, Venkatasubramanian, (Wed S05)09:50, (Thu S06)16:40 Vivas Galarza, Sarai, S12-030 Vivier, Vincent, (Mon S10)09:30, (Mon S10)14:00 Vizintin, Alen, (Fri S05)10:50 Vlachopoulos, Nick, S07-011 Voroshylova, Iuliia V., S09-004 Vorotyntsev, Mikhail, (Fri S15)09:30, (Fri S15)09:50, S15-014, S15-016, Vos, Rafaël E., (Thu S13)15:40 Vukmirovic, Miomir, (Fri S08)11:10

Wadas, Anna, (Thu S15)10:10 Wadayama, Toshimasa, S06-020 Wagner, Mary-Elizabeth, S12-005 Wagner, Norbert, S05-036, (Thu S05)17:40 Wahl, Amelie, (Mon S01)10:10 Wainright, Jesse, S05-033, (Tue S12)14:00, S15-005, S18-001 Waldeck, David, (Tue S14)09:30 Waldecker, James, S06-014 Waldvogel, Siegfried, (Thu S13)17:40, (Fri S13)09:30, (Fri S13)11:50, S13-004 Walgama, Charuksha, (Thu S04)16:00 Walker, James S., (Tue S06)14:20 Walker, Marc, (Tue \$16)14:40 Wallace, Kenneth, S03-012, (Thu S03)16:00 Wamwangi, Daniel, (Thu S15)14:40 Wang, Andrew, (Mon S15)14:20 Wang, Baochang, (Thu S06)17:20 Wang, Chen, (Thu S04)14:00 Wang, Cheng, S19-027 Wang, Chongmin, (Thu S05)17:00 Wang, Dong, S07-006 Wang, Erkang, (Mon S14)18:00 Wang, Fu-Ming, (Tue S05)17:00, (Thu S05)10:10 Wang, Gangli, (Mon S16)15:40

Wang, Guiling, S05-019, S06-018, S11-011, Wang, Han, (Thu S15)14:00

Wang, Hongxia, (Mon S07)15:20 Wang, Hui, (Fri S08)11:30 Wang, Jeng-An, S07-005, (Tue S07)17:20 Wang, Jian, S06-033 Wang, Jie, (Fri S11)09:50 Wang, Jin, (Thu S05)14:00 Wang, Jirui, S11-021 Wang, Lianjun, S12-014, S12-031 Wang, Miao, (Thu S05)15:40 Wang, Ming, S04-009 Wang, Nianxing, (Thu S11)10:10 Wang, Pu, (Mon S09)14:20, S19-034 Wang, Rongyue, (Mon S15)09:30 Wang, Rui, (Thu S11)15:00 Wang, Suning, (Tue S14)10:10 Wang, Tanyu, (Mon S16)15:40 Wang, Tanyuan, (Thu S11)17:40 Wang, Tao, (Mon S04)16:40, (Thu S06)15:00 Wang, Teng, (Mon S07)15:20 Wang, Wei, (Tue S16)18:00 Wang, Xia, S19-029 Wang, Xiang, (Tue S14)10:10 Wang, Yahui, S10-006 Wang, Yang, S05-041, S06-006, S06-013, (Mon S06)09:50 Wang, Yanyan, (Mon S06)16:00 Wang, Yao-Hui, (Mon S15)18:00 Wang, Yin-Zhu, S01-007 Wang, Yingying, S01-011 Wang, Yu-Cheng, (Thu S06)15:40 Watanabe, Hirofumi, S06-020 Watanabe, Takeshi, (Tue S11)15:00 Watanabe, Taku, (Fri S05)11:10 Weber, Adam, (Tue S06)15:40, (Thu S17)15:00 Weber, Carl Cesar, S06-028 Wei, Chao-Nan, S11-009 Wei, Tong, S11-031 Weisshar, Bjoern, S17-002 Weissmueller, Jörg, (Thu S08)14:00, (Thu S08)17:00, (Thu S08)17:20 Wentzell, Jordan, (Tue S12)15:40 Wester, Niklas, (Fri S03)09:50 Westerhoff, Paul, S12-019 Whalley, Penny, (Tue S16)15:20 Wheeler, Daniel, (Tue S18)16:00 White, Robin, (Thu S06)14:00 Widdershoven, Franz, (Tue S15)15:20 Wiegmann, Tim, S19-030 Wiita, Elizabeth, (Mon S04)10:10 Wilkening, Martin, (Tue S05)18:00 Wilkins, David, (Fri S03)10:50 Wilkinson, David, (Mon S06)15:00 Williams, Federico, (Fri S05)10:10 Wilson, David, (Tue S14)15:20 Wischerhoff, Erik, S04-013 Wittmaier, Dennis, S05-036 Wittstock, Gunther, (Tue S09)17:40, (Tue S05)18:00, (Thu S08)16:00, (Thu S08)17:00, S11-030

Woi, Pei Meng, (Thu S11)09:30 Wojciuk, Grzegorz, (Tue S19)09:50 Wojnarowicz, Agnieszka, (Thu S04)15:20 Wojnicki, Marek, (Mon S02)18:20 Wolf, Hannes, (Mon S05)15:00 Wolf, Martin, (Tue \$15)14:40 Wolff, Elisabeth, (Mon S09)16:40 Wolverton, Christopher, (Thu S05)17:00 Wong, Ademar, *S19-002* 

Wood, David, S05-004, (Mon S05)09:30

Wood, Marrisa, S05-004 Yan, Yongde, (Mon S09)14:20, Yuichi, Aihara, (Fri S05)09:30 Wouters, Benny, (Mon S10)18:00, S12-003 (Mon S19)15:40, S11-011 Yushin, Gleb, (Wed S05)09:30 Woytasik, Marion, (Thu S04)15:00 Yan, Yushan, (Fri S06)09:30 Wreland Lindström, Rakel, (Thu S05)17:20 Yañez, Claudia, S19-007 Zabinski, Piotr, (Mon S02)18:20 Wren, Jungsook, (Tue S10)10:10 Yáñez-Sedeño, Paloma, S03-014 Zack, Jason, (Fri S08)09:50 Wu, Cheng Yu, (Thu S05)16:40 Yang, Cheng, (Mon S01)14:00 Zaffora, Andrea, (Tue S11)17:00, S11-023 Wu, Congping, S06-011 Yang, Chun-Chen, S11-002, S11-004, Zagal, Jose H., (Mon S11)17:40, Wu, Dan, S19-027 S11-009, S11-010 (Thu S11)15:40, (Fri Plenary)08:15 Yang, Chunzhen, (Tue S15)17:40, Wu, De-Yin, (Tue S14)17:20 Wu, Dongjun, (Fri S08)10:10 (Fri S15)11:50 Wu, Fei, S04-009 Yang, Daehoon, (Tue S12)17:40 Wu, Hao, S11-038 Yang, Haesik, S01-004, S01-005 Wu, Haoran, (Tue S07)16:40 Yang, Hao, (Tue S11)17:40 Wu, Jinsong, (Thu S05)17:00 Yang, Hongzhou, (Thu S06)14:20 (Fri S03)09:30 Wu, Lian-Kui, S11-035 Yang, Hui-Juan, S06-022 Wu, Liankui, S06-036 Yang, Jintao, S11-007 Wu, Sheng-Hui, (Tue S05)18:00 Yang, Jun, S06-014 Wu, Wei, (Mon S12)15:40 Yang, Long, S11-022 Wu, Yanfang, (Tue S11)15:20 Yang, Seung-Hoon, S11-006 Yang, Shenglin, S06-006, S06-013 Wu, Yi-Min, S03-010 (Tue S18)17:40 Yang, Shu, S16-012 Wuttig, Anna, (Tue S15)18:00 Yang, Xiao-Dong, (Thu S06)15:00 Yang, Xiaoguang, S19-018 Xia, Jiaxin, (Thu S08)16:40 Yang, Xiaohui, (Thu S15)17:40 Xia, Lin, (Mon S04)18:00 Yang, Xuegeng, (Mon S02)18:20 Xia, Xing-Hua, (Thu S04)14:00 Yang, Ying, (Tue S11)15:20, (Tue S07)18:20 Xia, Yongyao, (Mon S05)14:00 Yang, Yong, (Thu S17)09:30 Xiang, Guiming, (Tue S14)10:10 Yano, Jun, S06-034 Xiao, Changlong, (Mon S07)16:00 Yanson, Alex, (Mon S11)15:20 Xiao, Chi, \$16-011 S17-007 Yao, Huiqin, (Tue S16)10:10 Zeng, Zhi-Cong, S15-002 Xiao, Fu-Ren, (Mon S11)17:20 Yarlagadda, Venkata R., (Fri S08)09:50 Xiao, Xianghui, S05-038, (Tue S06)15:40, Yasueda, Kengo, (Mon S04)17:20 S19-012 Yasujima, Reiho, (Mon S04)17:20 Xiao, Xingcheng, (Fri S05)09:30 S19-012 Yasuno, Satoshi, (Fri S05)11:50 Xiao, Xinxin, (Tue S04)18:20 Yazici, Mehmet Suha, (Fri S06)11:30 Xiao, Xu, (Tue S11)09:30 (Tue S06)18:00 Yen, Ching-Jung, S03-010 Xie, Anjian, S11-008 Yerokhin, Aleksey, (Mon S10)15:00, Xie, Han Jin, (Tue S07)14:00, S11-020 Zerbetto, Mirco, S16-005 (Wed S12)09:30, (Wed S12)10:10, Xie, Hao, (Thu S06)17:20 (Fri S15)11:10 Xie, Li-Qiang, S15-001, S15-006 Yi, Jianglong, S19-024 Xie, Xiangzhong, (Thu S17)14:20 Yi, Junsin, S05-039 (Mon S12)15:20 Xie, Xiaoji, (Thu S06)15:20 Yi, Tien-Yu, (Tue S07)17:20 Zhang, Bo, (Thu S05)14:40 Xie, Zhaoxiong, (Thu S06)09:30 Yin, Taiqi, (Mon S09)14:20, (Mon S19)15:40 Xin, Huolin L., (Fri S11)09:50 Yin, Yinghui, (Wed S18)09:30, Xing, Da, (Thu S05)17:20 Zhang, Fayin, S05-001 (Thu S05)14:20 Xiong, Bao Kou, S19-014 Yokoshima, Tokihiko, S01-017, S05-021 Xu, Chunchuan, S06-014 Yokota, Yasuyuki, (Tue S11)16:40 Xu, Guobao, (Mon S14)14:00 Yokoyama, Ayano, (Mon S19)14:40 Xu, Hai-Chao, (Fri S13)12:10 S12-006 Yoon, Dang-Hyok, S05-039 Xu, Jing-Juan, S01-007, (Mon S14)17:20 Yoon, Kyung Joong, (Fri S06)12:10 Xu, Qunjie, S06-021, S10-009 Yoon, Taeho, (Mon S05)14:40 Xu, Xiaotang, (Thu S12)17:40 Zhang, Jing-Fu, S19-027 Yoon, Young, S19-023 Xu, Yin, (Mon S19)14:00, (Wed S11)09:50 Zhang, Jingjing, S01-006 Yoon, Youngmin, (Tue S15)17:20 Xuan, Cuijuan, (Fri S11)09:50 Zhang, Jun, S05-041 Yoshida, Jun-ichi, (Fri S13)10:50 Xue, Yun, (Mon S09)14:20 You, Cheng-En, S11-010 You, Hoydoo, (Mon S15)09:30, (Thu S08)15:40 Yae, Shinji, (Mon S19)14:40 Zhang, Liqiang, S11-038 You, Ting-Hsuan, S06-023 Yagi, Ichizo, S06-015, (Mon S04)16:00, Younesi, Reza, (Tue S05)14:00 S11-027, S19-008 Yu, Hua-Zhong, S04-012, (Tue S15)09:50 Yamagata, Masaki, (Mon S05)16:00 Yu, Huimin, (Tue S11)09:30 Yamaki, Tetsuya, S06-008 Yu, Ji-Sang, S05-003 Yamamoto, Masahiro, S17-006 Zhang, Ruizhong, S11-025 Yu, Jong-Sung, (Mon S05)18:00 Yamamoto, Shunya, S06-008 Zhang, Shiming, S06-014 Yu, Kuang, (Fri S17)09:30 Yamamoto, Yusuke, (Thu S06)14:20 Zhang, Wei, S15-002 Yu, Ping, (Mon S11)16:00 Yan, Bing, (Tue S15)17:20, (Thu S11)14:20 Yu, Xiuxia, (Mon S14)18:20 Yan, Jia-Wei, (Fri S15)11:30, S15-001, Zhang, Xiang, S07-006 Yu, Yan, (Fri S05)11:30 S15-002 Yu, Yi, S05-035, (Mon S10)15:40 Yan, Pengfei, (Thu S05)17:00 Yu, Yun, S17-003

Yuh, Chao-Yi, S06-029

Zager, Daniel, (Thu S06)09:30 Zaghdoudi, Melika, (Thu S13)17:20 Zagoraiou, Eirini, (Mon S06)14:40 Zakharov, Dmitri, (Fri S06)09:30 Zaldivar-Lelo de Larrea, Guadalupe, Zamborini, Frank, (Tue S16)09:30 Zan, Lingxing, (Thu S05)17:20 Zana, Alessandro, (Mon S06)16:40 Zang, Dejin, (Thu S11)14:00 Zangari, Giovanni, (Mon S19)14:00, Zanoni, Maria Valnice, (Mon S19)09:50 Zanta, Carmem, (Tue S10)14:20, S12-015 Zarei, Leila, (Tue S11)15:20 Zatloukalova, Martina, (Thu S04)15:40 Zavadil, Kevin, S05-035, (Tue S05)17:40 Zeiger, Marco, (Tue S11)18:00 Zeng, Chengchu, (Thu S13)10:10 Zeng, Zhenhua, (Thu S06)14:00, S17-007, Zenyuk, Iryna V., (Tue S06)15:00, (Tue S06)15:40, (Tue S06)16:40, S17-001, Zeradjanin, Aleksandar, (Mon S15)15:40, Zerbetto, Francesco, (Thu S03)17:40 Zerrad-Saadi, Amal, S02-007 Zhan, Chao, (Tue S14)17:20 Zhan, Dongping, S04-015, (Mon S12)15:20, Zhang, Chunfei, (Mon S05)18:00 Zhang, Fen, (Tue S01)15:20 Zhang, Fengyang, (Fri S11)11:50 Zhang, Guirong, S02-010, (Tue S11)18:00, Zhang, Guohui, (Tue S16)14:40 Zhang, Jie, (Mon S12)15:20 Zhang, Liang-Liang, S19-027 Zhang, Lin, (Mon S12)15:20 Zhang, Ling, (Mon S14)14:00 Zhang, Meng, (Tue S14)17:20, S15-006 Zhang, Milin, (Mon S09)14:20 Zhang, Qianqian, (Mon S12)09:30 Zhang, Ruirui, (Tue S15)16:00 Zhang, Wenjian, (Mon S19)14:20 Zhang, Xiaowei, (Mon S14)18:00 Zhang, Xing, *S11-008* Zhang, Xinmin, (Thu S05)14:00

Yan, Qing, S11-031

Zhang, Xinsheng, (Mon S06)10:10

Zhang, Xinyi, (Mon S07)16:00

Zhang, Xu, S07-009

Zhang, Xuan, (Wed S11)09:30

Zhang, Xueqing Dennis, (Fri S17)11:50

Zhang, Yantao, (Thu S05)14:00

Zhang, Yonghao, S12-031

Zhang, Yunya, (Mon S12)15:40

Zhang, Yuzi, S15-003

Zhang, Zong-Cheng, (Fri S11)10:50

Zhao, Fu, (Mon S19)14:00

Zhao, Hongbo, S17-004

Zhao, Jianming, (Mon S14)14:00

Zhao, Jing, S05-019

Zhao, Ruijie, (Wed \$18)09:30

Zhao, Ting-Ting, (Thu S15)14:00

Zhao, Wei, S01-007

Zheludkevich, Mikhail, (Tue S10)09:30

Zhen, Chun-Hua, (Fri S11)10:50

Zheng, Guoqu, S06-036, S11-035, S11-038

Zheng, Lituo, (Tue S05)18:20

Zheng, Xiamei, (Thu S12)15:20

Zheng, Xuan, S10-006, S19-027

Zheng, Yueming, \$05-015

Zhong, Ming-Qiang, S11-007

Zhou, Jian-Zhang, S15-001

Zhou, Jun, (Tue S11)09:30

Zhou, Junyu, S01-008

Zhou, Minghua, S12-018

Zhou, Peng, S08-001, (Tue S10)15:40

Zhou, Ping, S19-027

Zhou, Yue, (Thu S04)14:00

Zhou, Zhi-You, S06-022, (Thu S06)15:00,

(Thu S06)15:40, S15-011

Zhu, Enhua, S03-008, (Thu S03)15:20

Zhu, Jun-Jie, (Mon S14)15:40, S14-002

Zhu, Ya-Zhi, S11-007

Zhu, Yiming, S05-041

Zhu, Zengwei, (Thu S15)15:00,

(Thu S15)15:00

Zhuang, Houlong, (Fri S17)09:30

Ziegelbauer, Joseph M., (Fri S08)09:50

Zima, Jiri, S02-003

Zinovyeva, Veronika, (Mon S09)17:00

Ziolkowska, Dominika, (Thu S11)09:30,

(Fri S06)09:30

Zitolo, Andrea, S06-035, (Fri S06)09:30,

(Fri S06)10:10

Zong, Cheng, (Tue S15)14:00

Zou, Shouzhong, (Tue S18)16:00

Zou, Zhigang, S06-011

Zulevi, Barr, (Mon S06)09:30

Zúñga, César, (Thu S11)15:40

## 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 75 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,

Journal of Electroanalytical Chemistry,

Electrochemistry Communications,

Bioelectrochemistry,

Journal of Power Sources,

Journal of Applied Electrochemistry,

Electrocatalysis,

Journal of Solid State Electrochemistry 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 50 EUR for members above 30 years of age, and 15 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**

Philip N. Bartlett, Southampton, UK (2017-2018)

Representation of ISE. Chairperson of Executive Committee, Council and General Assembly

#### President Elect

Zhong-Qun Tian, Xiamen, China (2017-2018)

Chairperson of Committee of Division Officers. Coordination of scientific program of future Annual Meetings, supervision of Division Officers' activities

#### Immediate Past President

Christian Amatore, Paris, France (2017-2018)

Chairperson of Executive Committee in the absence of the President

#### Vice Presidents

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

Tomokazu Matsue, Sendai, Japan (2016-2018)

Responsible for relations with other Societies

Marilia Goulart, Maceio, Brazil (2017-2019)

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

**Gunther Wittstock**, Oldenburg, Germany (2017-2019)

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: D. Mandler, Past Chair: F. Bedioui, Chair Elect: Alain Walcarius, Vice-Chairs: R. Kataky and C. Hogan

#### **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: F. Lisdat, Past Chair: R. Bilewicz, Chair Elect: Elena Ferapontova, Vice-Chairs: E. Lojou and Taek Dong Chung

#### 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: R. Kostecki, Past Chair: S. Passerini, Chair Elect: Francesca Soavi, Vice-Chairs: H. Uchida and Kiyoshi Kanamura

#### **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: G. Zangari, Past Chair: S. Brankovic, Chair Elect: Monica Santamaria, Vice-Chairs: M. Vorotyntsev and Chi-Chang Hu

#### 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: K. Bouzek, Past Chair: J. Peralta-Hernandez, Chair Elect: Gerardine Botte, Vice-Chairs: G. Kelsall and H. Bergmann

#### Division 6 – MOLECULAR ELECTROCHEMISTRY

Structural and mechanistic aspects of electrode processes of inorganic, metallorganic and organic substances; synthetic applications.

Chair: O. Buriez, Past Chair: F. Paolucci, Chair Elect: Patrizia Mussini, Vice-Chairs: C. Frontana, G. Xu and M. Hromadova

#### 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. Gewirth, Past Chair: A. Russell, Chair Elect: Angel Cuesta Ciscar, Vice-Chairs: L. Zhuang and A. O'Mullane

#### **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: , Past Chair: P. Unwin, Chair-Elect: N.J. Tao

# **Regional Representatives**



# 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)

# **Corporate Sustaining Members**



Corporate Sustaining Members are industrial and commercial (profit-making) organizations. As a Corporate Sustaining Member you can nominate one or two person(s) as your representative(s).

Corporate Sustaining representatives have the following advantages:

- One representative receives an online access to the ISE journal Electrochimica Acta without further charge.
- They can participate in Annual ISE Meetings at reduced registration fees.
- They are invited to co-operate with the divisions, to give proposals and advice on division symposia.
- They are informed about the activities of ISE and about Annual, Topical and Special ISE Meetings and division symposia on new developments in science and technology.
- They can be elected as Society officers

#### Advertising

• A list of the Corporate Sustaining Members is published regularly in Electrochimica Acta and on the ISE web pages.

#### **Annual Meeting**

- Special sessions will be organised for electrochemical and electroanalytical instrumentation.
- You can contact regional groups via Regional Representatives.
- Business meeting places will be offered during Annual ISE Meetings for contacts between people from science and industry to discuss issues such as job recruiting, co-operation in applied research, announcement of research frameworks, negotiation of research contracts etc.

For further information please contact the ISE Office.

Corporate Sustaining Membership fee: 500 EURO

# **Corporate Members**

Corporate Members are teaching institutions, non-profit-making research organizations and learned societies. As a Corporate Member you can nominate a person as your representative.

Corporate representatives have the following advantages:

- One representative receives an online access to the ISE journal Electrochimica Acta without further charge.
- They can participate in Annual ISE Meetings at reduced registration fees.
- They are invited to co-operate with the divisions, to give proposals and advice for division symposia.
- They are informed about the activities of ISE and about Annual and Special ISE Meetings and division symposia on new developments in science and technology.
- They can be elected as Society officers.

Corporate Membership fee: 300 EURO

# Corporate and Corporate Sustaining Members of ISE

Ametek-AMT
Central Electrochemical Research Institute
Ionode Pty Ltd
Metrohm Autolab BV
PalmSens BV
Paul Scherer Institute
Scribner Associates, Inc
Sensolytics GmbH
Tanaka Kikinzoku Kogyo K.K.

# **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 R. Alkire Ph. Allongue C. Amatore D. Aurbach P. Bartlett R. J. Behm A. Bond E. Cairns A. Chen C. Comninellis R. Compton S. Cosnier C. Fan W.R. Fawcett J. Feliu C. Gabrielli E. Gileadi H. Girault J. Gooding 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. McCreery R. Nichols P. Novak T. Osaka M. Osawa S. Passerini Z. Samec R. Savinell

E. Savinova D. Schiffrin W. Schmickler P. Schmuki F. Scholz W. Schuhmann B. Scrosati A. Shukla P. Simon U. Stimming S. Sun Z. Tian J. Ulstrup P. Unwin K. Uosaki C. Vayenas A. Walcarius Li-Jun Wan 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.

#### 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.

#### Zhaowu Tian Prize for Energy Electrochemistry

The Zhaowu Tian Prize for Energy Electrochemistry may be awarded annually to a scientist of less than 40 years of age on January 1st of the year of the award, in recognition of her/his recent achievements in the field of electrochemistry for energy.

#### **ISE-Prize for Electrochemical Materials Science**

The ISE-Prize for Electrochemical Materials Science is awarded annually to a young person for contributions in the field of electrochemical material science, including corrosion, electrodeposition and 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-Elsevier Prize for Experimental Electrochemistry

The ISE-Elsevier Prize for Experimental Electrochemistry may be awarded annually to a person who has made an important contribution to experimental electrochemistry.

#### ISE-Elevier Prize for Green Electrochemistry

The ISE-Elsevier Prize for Green Electrochemistry may be awarded annually to a scientist of less than 35 years of age on January 1st of the year of the award, for recent application-oriented achievements in the field of environmental electrochemistry.

#### ISE-Elsevier Prize for Applied Electrochemistry

The ISE-Elsevier Prize for Applied Electrochemistry may be awarded annually to a scientist of less than 35 years of age on January 1st 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

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  $600 \in$ ; the expected use of the funds must be specified in the application. Co-sponsoring by other Societies and/or institutions is possible.

s19-019

s17-006

\_s15-006

s10-003 s

s06-025 s06-006 s06-024

s06-007

s04-001∏s04-019 s03-015 | s04-018

s01-008 \[ \text{s02-008} \]

s05-001

s04-002

s01-009 | s02-009

s03-011 s04-014 s03-010 s04-013

s02-003 s01-002 s02-002 s01-001 s02-001

s01-003

s03-009 s04-012

s03-013 s04-016 s03-012 s04-015

s01-005 s02-005 s01-004 s02-004

s03-014 s04-017

\$01-007 \$02-007 \$01-006 \$02-006

s19-001

s15-007

s17-005 15-018

\$00.00 | S15-005 | \$006-040 | \$15-005

\$06-005 \$06-023 \$06-004 \$06-022

s17-003 s19-016 s17-002 s19-015

s19-017

s17-004

s15-003

s06-039

s06-021 s06-020

s06-003

s15-002 \$15-001

s06-002

s06-037

s06-001 s06-019

Wednesday 30 August 2017

**Poster Session** 

# Poster Session 1

# Monday 28 August 2017

# Ç (

2017	Poster Session 2 Tuesday 29 August 2017	sion 2 7 August 2	2017
\$05-030 \$05-029 \$05-028 \$05-027 \$05-027 \$05-025 \$05-025 \$05-021 \$05-021 \$05-021 \$05-021 \$05-021 \$05-021 \$05-021	\$11-024 \$11-005 \$11-005 \$11-004 \$11-02 \$11-003 \$11-02 \$11-001 \$11-011 \$07-011 \$07-010	\$12-018 \$12-017 \$12-016 \$11-039 \$12-014 \$11-036 \$12-012 \$11-035 \$12-011 \$11-033 \$12-010	\$13-005 \$13-004 \$13-003 \$13-002 \$13-001 \$12-033 \$16-009 \$12-033 \$16-006 \$12-033 \$16-006 \$12-032 \$16-006 \$12-022 \$16-006 \$12-027 \$16-005 \$12-025 \$16-005 \$12-025 \$16-005
\$05-018 \$05-038 \$05-017 \$05-037 \$05-016 \$05-036 \$05-014 \$05-034 \$05-013 \$05-033 \$05-011 \$05-033	\$07-008 \$\text{s11-014} \\ \$07-007 \text{s11-013} \\ \$07-006 \text{s11-011} \\ \$07-005 \text{s11-010} \\ \$07-003 \text{s11-009} \\ \$07-001 \text{s11-008} \\ \$07-001 \text{s11-008} \\ \$07-001 \text{s11-008} \end{array}	\$11-032 \$12-008 \$11-031 \$12-007 \$11-030 \$12-006 \$11-029 \$12-005 \$11-027 \$12-003 \$11-027 \$12-003 \$11-026 \$12-002	\$12-026 \$16-002 \$12-025 \$16-001 \$12-024 \$14-003 \$12-022 \$14-001 \$12-021 \$13-008 \$12-020 \$13-007 \$12-010 \$13-000

\$04-006 \$05-005 \$04-005 \$05-004

\$01-013 \$03-003 \$01-012 \$03-002

s04-004 s05-003

s04-003 so5-002

s01-011 s03-001 s01-010 s02-010

s04-007 s05-006

s19-009 s19-029 s19-008 s19-028

\$10-010 | \$15-015 \$10-010 | \$15-0

s10-012 Ts15-016

s06-034 s06-015 s06-033 s06-014 s06-032

s06-016

s04-009 \sqrt{s05-008}

1 s01-016 | s03-007

s04-010

s04-011 Ts05-010 s05-009

s01-018 Ts03-008

s05-007

s04-008

s01-015 s03-005 s01-014 s03-004

s06-035

s06-017

s15-017

[s17-001

s06-018∏s06-036

s19-011 s19-031 s19-010 s19-030

s19-013 s19-033 s19-012 s19-032

s19-007 s19-027 s19-006 s19-026

s15-013

s10-009

s06-013 s06-031 s06-012 s06-030

s06-011 s06-029 s06-010 \$06-028

s10-008 s15-012

s19-005 | s19-025

s19-004 s19-024

s10-007 s15-011 s10-006 s15-010

s19-023

s19-003

s15-009

s10-005

s06-027

600-90s

s19-002 s19-022 s19-021 [s19-020

s10-004 Ts15-008

s06-008 s06-026

# Symposia: s06, s10, s15, s17, s19

Symposia: s7, s11, s12, s13, s14, s16, s18

Symposia: s1, s2, s3, s4, s5, s8, s9

# Poster plan of poster presentation session 1 - Monday

#### Symposia:

Symposium 01: New Experimental Trends in Analytical Electrochemistry

Symposium 02: Flow and Microfluidic Systems in Analytical Electrochemistry

Symposium 03: Electrochemical Approaches to Clinical Diagnostics and Medical Devices

Symposium 04: Bioelectrochemistry without Borders

Symposium 05: Novel Materials and Devices for Energy Storage: Batteries for Tomorrow's World

Symposium 08: Dealloying: Fundamentals, Application, and Control Symposium 09: Ionic Liquids as Media for Electrochemical Synthesis

Poster set-up Monday: 08:00-10:30

Poster Presentation: Monday, 28 August 2017: 10:45-12:45

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

# Poster plan of poster presentation session 2 - Tuesday

#### Symposia:

Symposium 07: Supercapacitors from Materials and Processes to Applications

Symposium 11: Synthesis and Applications of Electrochemically Active Materials Symposium 12: Electrochemical Technology for solving 21st Century Challenges

Symposium 13: The Green Potential of Molecular Electrochemistry

Symposium 14: Let there be Light in Electrochemistry:

From Electrogenerated Chemiluminescence to Fluorescence

Symposium 16: Electrochemistry of Metal Clusters and Nanoparticles

Symposium 18: Education for Electrochemistry and Electrochemical Engineering

Poster set-up Tuesday: 08:00-10:30

Poster Presentation: Tuesday, 29 August 2017: 10:45-12:45

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

# Poster plan of poster presentation session 3 - Wednesday

#### Symposia:

Symposium 06: Fuel Cells and Electrolyzers

Symposium 10: Corrosion: Fundamentals, Passivity, and Prevention

Symposium 15: Physical and Interfacial Electrochemistry: Structural, Spectroscopic, and Theoretical Studies of the

Electrochemical Interface

Symposium 17: Advances in Theory and Modeling of Electrochemical Systems

Symposium 19: General Session

Poster set-up Wednesday: 08:00-10:30

Poster Presentation: Wednesday, 30 August 2017: 10:45-12:45

Poster take-down Thursday: 12:00-14:00

# Week schedule

	Sunday		Monday	Tuesday	Wednesday	Thursday	Friday
		08:15-09:15	Plenary Lecture				
		09:30-09:50	Ĺ1	Ĺ1	Ĺ1	Ĺ1	Ĺ1
		09:50-10:10	L2	L2	L2	L2	L2
		10:10-10:30	L3	L3	L3	L3	L3
		10:30-10:45			Coffee Break		
		10:50-11:10					L4
		11:10-11:30				General	L5
		11:30-11:50	Dootor Cossion	Poster Session	Doctor Cossian	Assembly	L6
		11:50-12:10	Poster Session	Poster Session	Poster Session		L7
		12:10-12:30				Lunch	L8
		12:30-12:45				Lunch	Closing
			Div.+Reg. Rep.	Council	EA Author	Division Meet	-
13:00-13:30	Registration open	12:45-13-45	Lu	nch	Elsevier	Lunch	
13:30-14:00			Lu	IICII		Lunch	
14:00-14:20		14:00-14:20	L4	L4	Workshop	L4	
14:20-14:40		14:20-14:40	L5	L5		L5	
14:40-15:00		14:40-15:00	L6	L6		L6	
15:00-15:20	Tutorial lectures	15:00-15:20	L7	L7		L7	
15:20-15:40	Tutorial lectures	15:20-15:40	L8	L8		L8	
15:40-16:00		15:40-16:00	L9	L9		L9	
16:00-16:20		16:00-16:20	L10	L10		L10	
16:20-16:40		16:20-16:40		Break	Excursions	Coffee Break	
16:40-17:00		16:40-17:00	L11	L11		L11	
17:00-17:20		17:00-17:20	L12	L12		L12	
17:20-17:40		17:20-17:40	L13	L13		L13	
17:40-18:00		17:40-18:00	L14	L14		L14	
18:00-18:20		18:00-18:20	L15	L15		L15	
18:20-18:40	Welcome	18:20-18:40	L16	L16			
18:40-19:00	Reception	18:40-19:00	Reception				
19:00-20:00	•	19:00-20:00	reception			Banquet	