



Connecting electrochemists since 1949

# The International Society of Electrochemistry 2025

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## 2025

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# International Society of Electrochemistry

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**ISE** is a worldwide non-profit organization with its seat in Lausanne, Switzerland. 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 original society, then known as CITCE (Comité International de Thermodynamique et Cinétique Electrochimiques). Since then ISE has evolved and comprises now more than 3800 Individual Members and Corporate Members. Its membership comes from more than 75 countries from all continents.

## ISE Objectives

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- To advance electrochemical science and technology
- To disseminate scientific and technological knowledge
- To promote international cooperation in electrochemistry
- To maintain a high professional standards among its members

The ISE objectives are pursued by:

- The organization of Annual Meetings and Topical Meetings
- The sponsoring of independent meetings
- The publication of a scientific journal
- Scientific awards

## ISE is organized in seven Divisions covering the following areas:

1. Analytical Electrochemistry
2. Bioelectrochemistry
3. Electrochemical Energy Conversion and Storage
4. Electrochemical Materials Science
5. Electrochemical Process Engineering and Technology
6. Molecular Electrochemistry
7. Physical Electrochemistry

ISE also has a New Topics Committee to identify new scientific and technological subjects not covered by the divisions. The divisions are responsible for implementing the scientific content of the meetings of the Society.

## ISE Annual Meetings

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The ISE Annual Meetings are distinguished international scientific-technological congresses held in a different country every year. They take place in August-October and are attended by 1200-2000 electrochemists.

These wide-scope meetings emphasize new developments in electrochemical science and technology in areas such as new materials, microfabrication, sensor technology, electronics, energy storage and conversion, and environmental technologies.

## ISE Topical Meetings

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These meetings highlight high-impact or emerging topics and are under the scientific responsibility of one or two divisions.

They take place in March-June in different countries each year.

## ISE Sponsored Meetings

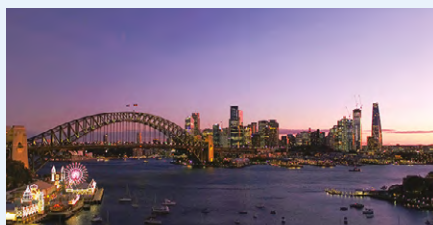
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ISE sponsors a considerable number of scientific meetings every year in all fields of electrochemistry.

These meetings are international in character. The programs are expected to be of the same high quality as at the Annual & Topical Meetings.



**Annual Meeting 2025: Mainz, Germany**



**Annual Meeting 2026: Sydney, Australia**



**Topical Meeting 2025: Natal, Brazil**



## 2024

### 75<sup>th</sup> Annual Meeting

Montréal, Canada

### 36<sup>th</sup> Topical Meeting

Sibenik, Croatia

### 37<sup>th</sup> Topical Meeting

Stresa, Italy

### 38<sup>th</sup> Topical Meeting

Manchester, UK

## 2025

### 76<sup>th</sup> Annual Meeting

Mainz, Germany

### 39<sup>th</sup> Topical Meeting

Natal, Brazil

### 40<sup>th</sup> Topical Meeting

Changchun, China

## 2026

### 77<sup>th</sup> Annual Meeting

Sydney, Australia

### 41<sup>st</sup> Topical Meeting

Helsinki, Finland

### 42<sup>nd</sup> Topical Meeting

Belgrade, Serbia

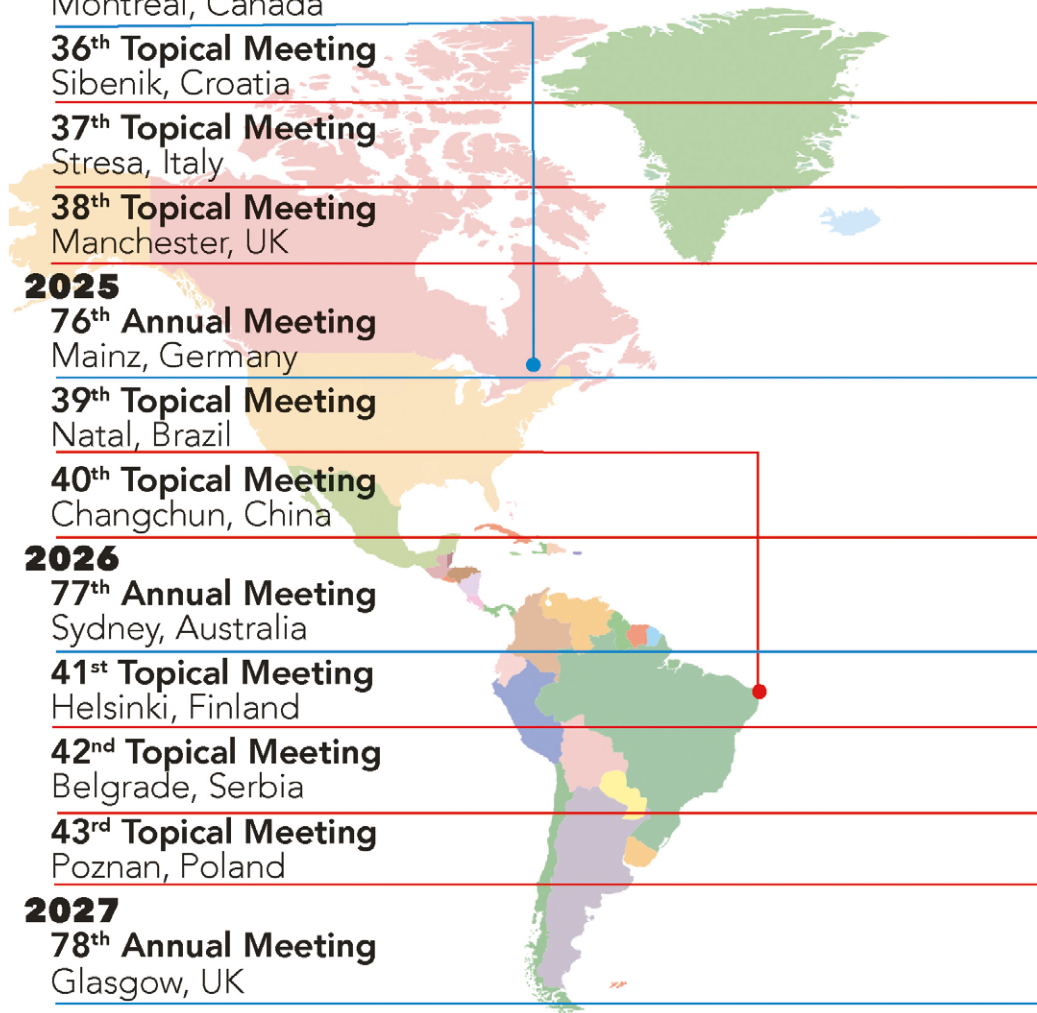
### 43<sup>rd</sup> Topical Meeting

Poznan, Poland

## 2027

### 78<sup>th</sup> Annual Meeting

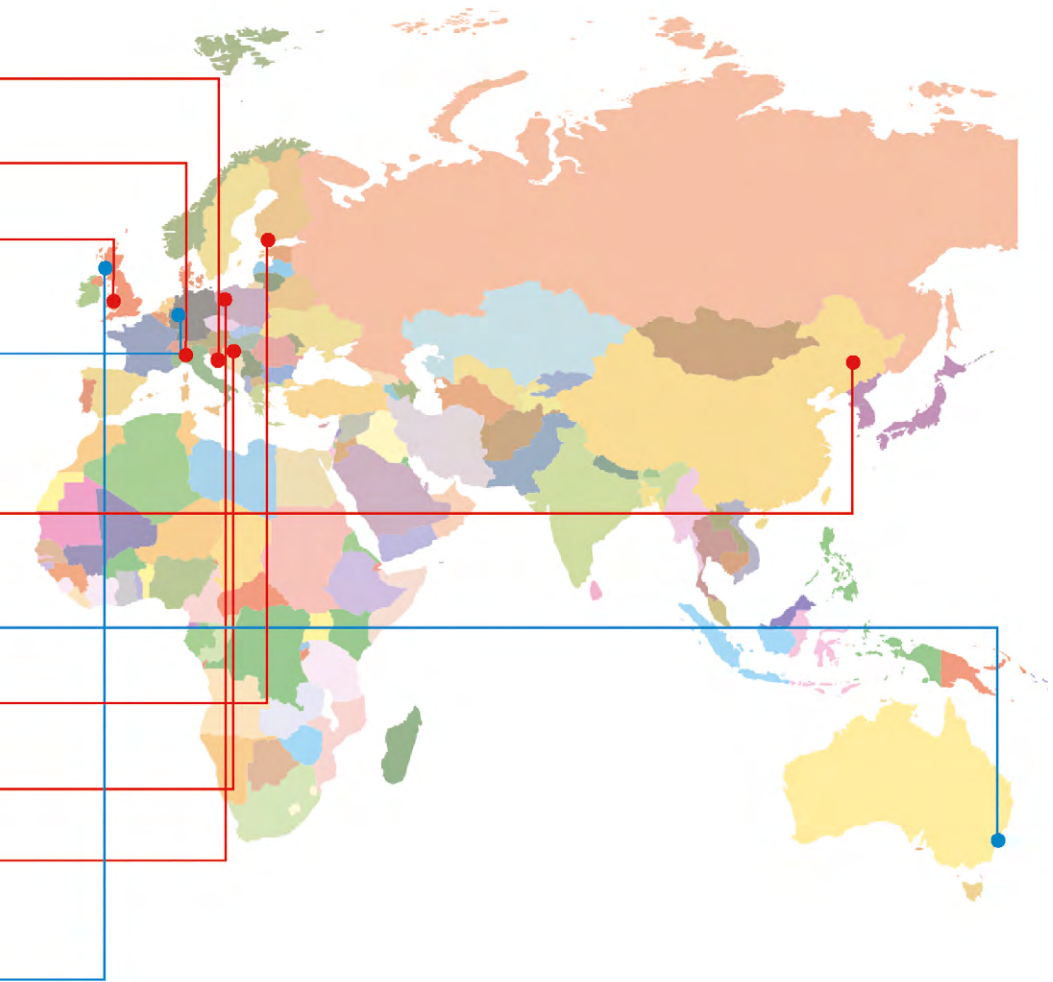
Glasgow, UK



## Forthcoming Annual and Topical Meetings

### Annual Meetings

- 7 - 12 September 2025, **Mainz, Germany** - 76<sup>th</sup> Annual Meeting
- 23 - 28 August 2026, **Sydney, Australia** - 77<sup>th</sup> Annual Meeting
- 5 - 10 September 2027, **Glasgow, UK** - 78<sup>th</sup> Annual Meeting



## **Topical Meetings**

- 8 - 11 September 2024, **Manchester, UK** - 38<sup>th</sup> Topical Meeting
- 23 - 26 March 2025, **Natal, Brazil** - 39<sup>th</sup> Topical Meeting
- 15 - 17 August 2025, **Changchun, China** - 40<sup>th</sup> Topical Meeting
- 2026, **Helsinki, Finland** -41, **Belgrade, Serbia** -42, **Poznan, Poland** -43

# 39<sup>th</sup> Topical Meeting

of the International Society of Electrochemistry



The role of electrochemistry in  
sustainable energy and the environment

23 -26 March, 2025 - **Natal, Brazil**



<https://topical39.ise-online.org>

## Important Dates

Abstract submission opens: **1 October 2024**

Abstract submission ends: **13 November 2024**

Conference begins: **23 March 2025**



## Conference Venue

The meeting will be held at the “**Praiamar Natal Hotel & Convention**”

Rua Francisco Gurgel, 33 - Ponta Negra, Natal-RN - [www.praiamarnatal.com.br/en](http://www.praiamarnatal.com.br/en)

## Transportation

**Airport:** Natal is served by Governador Aluizio Alves International Airport, in São Gonçalo do Amarante. European countries fly from Lisboa (Portugal) to Natal (Brazil) by direct flight (approx. 6 1/2 hours). Asiatic or African countries fly from Qatar (State of Qatar) or Frankfurt (Germany) international airports to Sao Paolo (Brazil) and then to Natal. From USA, Mexico or Canada fly to Sao Paolo, and then Natal.

## Climate

Natal has a tropical rainy climate with a dry summer with relatively low temperature ranges and relatively high air humidity, due to its location on the coast, making the effect of the maritime environment very noticeable. The Potiguar capital boasts the title of City of the Sun due to its high solar luminosity, the highest among Brazilian capitals, which exceeds 2,900 hours per year. The annual rainfall is approximately 1,700 millimeters (mm), concentrated between the months of March and July.

## Accommodation

**Holiday Inn:** <https://tinyurl.com/TM3901>

**Praiamar Hotel express:** <https://tinyurl.com/TM3902>

**Ibis hotel:** <https://tinyurl.com/TM3903>

**Serhs Natal Grand Hotel:** <https://tinyurl.com/TM3904>

## Restaurants

Natal has several restaurants. Most of them are concentrated in the neighbourhoods of Ponta Negra, Capim Macio, Tirol and Petrópolis. The city also has several supermarket chains, dozens of hotels and hostels. There are hotels of several categories and with accessible prices.

# Organizing Committee

Lucia Helena Mascaro  
Carlos A. Martínez-Huitle  
Rodrigo A. Abarza Muñoz  
Christiane de Arruda Rodrigues  
Dominic Rochefort  
Janaina de Souza Garcia  
Elisama Vieira dos Santos  
Luis Frederico Dick

# Local Organizing Committee

Lucia Helena Mascaro  
Carlos A. Martínez-Huitle  
Rodrigo A. Abarza Muñoz



## Invitation

Electrochemistry has great potential to contribute to the generation of clean and renewable energy as well as to the environment in processes such as: the production of green hydrogen, green gasoline, batteries, fuel cells, photovoltaic systems, pollution detection and remediation, reduction of CO<sub>2</sub> to fuels or syngas and ammonia production by nitrogen reduction.



## Scientific Themes

The meeting topic will be divided as follows:

1. **Clean, renewable and new energy systems** - Development of catalysts to hydrogen production, photovoltaic devices using friendly and abundant materials, photoelectrochemical cells to H<sub>2</sub> and ammonium production, fuel cells and electrical energy storage devices.
2. **Environmental electrochemistry** - Development of catalysts for pollution detection and remediation of soil, atmosphere and water with emphasis on real samples, Electrochemical and photoelectrochemical capture and reduction of CO<sub>2</sub> for production of fuels or in syngas.
3. **The coupling of degradation and power generation by (photo)catalytic fuel cells** - This system present double environmental benefit: Waste material can be consumed and solar radiation can be converted into useful forms of energy, such as electricity, hydrogen or fuel.

Division 5: Electrochemical Process Engineering and Technology

Division 3: Electrochemical Energy Conversion and Storage

## Call for Papers

Authors are invited to submit a one-page abstract in English, including figures, tables and references. Abstracts must be submitted online through the ISE website (<https://topical39.ise-online.org>).

The site will be open for the submission of abstracts on **1st October 2024**. The closing date for the submission of abstracts will be **13 November 2024**.

For details please refer to the ISE website.



# 40<sup>th</sup> Topical Meeting

of the International Society of Electrochemistry



Interfacial electrochemistry

15-17 August, 2025 - **Changchun, China**



<https://topical40.ise-online.org>

## Important Dates

Abstract submission opens: **16 February 2025**

Abstract submission ends: **5 April 2025**

Conference begins: **15 August 2025**

## Conference Venue

The conference is mainly held in the Complex Building in **Changchun Institute of Applied Chemistry (CIAC)**. CIAC is one of largest and best chemistry institute in China. It is in the center of Changchun city and is only a few hundred meters away from picturesque South Lake Park, one of campus of Jilin University and Northeast Normal University.

## Transportation

Changchun is easily accessed by air and train. **Changchun Longjia International Airport** (IATA: CGQ, ICAO: ZYCC) is a key international airport in Northeast of China and the Northeast Asia regional important air traffic hub. There are direct airlines to Changchun from Seoul, Tokyo, Beijing, Shanghai, Hong Kong, Guangzhou, Shenzhen, Xiamen, and so on. There are more than **30 trains per day between Beijing and Changchun**. It takes less than 4 hours by fastest train. Our institute is about 9 km from the railway station. It costs less than 5, and 20 Euros from the railway station and airport to our institute by taxi, respectively.

## Climate

Changchun is a friendly and safe summer/winter resort and maintains temperatures of about **25-30 °C** with fresh air and sun in the month of August.

## Accommodation

There are many hotels near CIAC from economical hotels to luxury hotels. **Redbuds Hotel in front of CIAC** has nearly 200 rooms for accommodation and offers professional conference facilities. It will be our honor to help you book a hotel on request.

# Organizing Committee

**Xiurong Yang (Chair)**, *Changchun Institute of Applied Chemistry, CAS*

**Guobao Xu (Co-Chair)**, *Changchun Institute of Applied Chemistry, CAS*

**Erkang Wang (Co-Chair)**, *Changchun Institute of Applied Chemistry, CAS*

**Neso Sojic**, *University of Bordeaux*

**Wojciech Nogala**, *Institute of Physical Chemistry, Polish Academy of Sciences*

**Philippe Hapiot**, *Institut Sciences Chimiques de Rennes, CNRS*

**Fetah Podvorica**, *University of Prishtina*

# Local Organizing Committee



**Wei Zhang**, *Changchun Institute of Applied Chemistry, CAS*

**Baohua Lou**, *Changchun Institute of Applied Chemistry, CAS*

**Jing Li**, *Changchun Institute of Applied Chemistry, CAS*

**Dan Li**, *Changchun Institute of Applied Chemistry, CAS*

**Ping Song**, *Changchun Institute of Applied Chemistry, CAS*

**Yuan Hu**, *Changchun Institute of Applied Chemistry, CAS*

## Invitation

You are cordially invited to the 40<sup>th</sup> Topical Meeting of the International Society of Electrochemistry and 20<sup>th</sup> International Symposium on Electroanalytical Chemistry (20<sup>th</sup> ISEAC), which will be held from 15 to 17, and from 12 to 15, August 2025 in Changchun, China, respectively. **Changchun, the capital of Jilin Province** in the northeast of China, is a vibrant city known for its unique blend of natural beauty, diverse cultural heritage, and scientific achievements. It is a friendly and safe summer/winter resort with a population of more than 9 million. As an educational hub, Changchun is home to several **top-tier universities and research institutions**, such as the university with the largest number of students in China and State Key Laboratory of Electroanalytical Chemistry. The culinary culture of Changchun is as rich and diverse as its history and scenery. Local dishes, influenced by the **Manchu** and **Han cuisines**, offer a delicious blend of flavors from savory stews and barbecues to sweet pastries. Changchun has internationally renowned China FAW Group Corporation, CRRC Changchun Railway Vehicles Co., Ltd, and Chang Guang Satellite Technology CO.LTD. It takes about 2.5 hours by express train from Changchun to Changbai Mountain.

## Scientific Themes

Electrochemistry, such as battery, electrochemical corrosion and protection, supercapacitor, electrosynthesis, electrolysis, electrodeposition, electroanalysis, photoelectrochemistry, light emitting electrochemical cell, electrochromism, electrochemical machining, electropolishing, electro dialysis and molecular devices, has received increasing attention because of their extensive applications. Interfacial electrochemistry plays critical roles for the successful applications of electrochemistry.

The meeting will cover interfacial electrochemistry and related topics to advance electrochemical science and technology and to promote international cooperation in electrochemistry. The main scientific scope includes solid/liquid and liquid/liquid interfacial electroanalytical chemistry, new material and approaches for the construction of electrochemical interfaces, imaging techniques for electrochemical interface, spectroelectrochemistry, photoelectrochemistry, single entity electrochemistry, interfacial electrochemistry in energy (batteries and supercapacitors, fuel cells), electrosynthesis, and molecular devices, theoretical and computational interfacial electrochemistry.

## Call for Papers

Authors are invited to submit a one-page abstract in English, including figures, tables and references. Abstracts must be submitted online through the ISE website (<https://topical40.ise-online.org>).

The site will be open for the submission of abstracts on **16 February 2025**. The closing date for the submission of abstracts will be **5 April 2025**.

For details please refer to the ISE website.



# 76<sup>th</sup> Annual Meeting

of the International Society of Electrochemistry



**Electrochemistry: From Basic Insights  
to Sustainable Technologies**

**7-12 September, 2025 - Mainz, Germany**



<https://annual76.ise-online.org>

## Important Dates

Abstract submission opens: **1 December 2024**

Abstract submission ends: **28 March 2025**

Registration deadline for presentation(s): **19 June 2025**



# Organizing Committee

Philipp Adelhelm (Berlin)

Plamen Atanassov (Irvine)

Ulrike Krewer (Karlsruhe) (Co-Chair)

Katharina Krischer (Munich)

Jaeyoung Lee (Gwangju)

Shelley Minter (Salt Lake City)

Christina Roth (Bayreuth)

Debbie Silvester-Dean (Perth)

Siegfried R. Waldvogel (Mainz) (Local Organizer)

Gunther Wittstock (Oldenburg) (Co-Chair)



## Invitation

You are warmly invited to the 76th Annual ISE Meeting to be held in Mainz, Germany from 7 to 12 September 2025, conveniently located close to Frankfurt. The meeting will take place at "**Rheingoldhalle**", a recently refurbished modern conference center.

Mainz is the capital and largest city of the State of Rhineland-Palatinate and is located at the river Rhine. The city was **founded by the Romans** in the 1st Century BC. It has a picturesque Old Town with an ensemble of historical buildings. The Cathedral "**Mainzer Dom**" is more than 1000 years old and is predominantly in Romanesque style. The Gutenberg Museum is one of the major attractions. It is dedicated to the city's most famous son **Johannes Gutenberg**, who invented printing with the printing press using movable letters. He started the Printing Revolution ushering the modern period of human history. The Church of St. Stephan is famous for its unique choir windows designed by artist **Marc Chagall**.

Mainz is the capital of Rheinhessen, Germany's largest **wine region**. The local wine is strongly connected to the culture of the area. Why not giving it a try when local wineries present their new wines at the local wine market?

Mainz is in the center of the Rhine-Main region, which is one of the largest aggregation of chemical research and production in the world. This comprises traditional chemical industry with electrochemical activities such as BASF, Evonik, Merck and many more, but it is also the home of new innovative pharmaceutical enterprises such as BioNTech, from which the scientific development of the Biontec/Pfizer Covid vaccine comes from.



## Plenary Lecturers



### **Bin Ren**, *Xiamen University, China.*

Bin Ren is a professor in Chemistry at Xiamen University, dean of College of Chemistry and Chemical Engineering, director of Center for Instrument and Equipment Development at Tan Kah Kee Innovation Laboratory, and vice director of the State Key Laboratory of Physical Chemistry of Solid Surfaces. He received his bachelor's degree in 1992 and PhD degree in 1998 from Xiamen University and started independent research work in the same university after that. He spent his sabbatical year in Fritz-Haber Institute with Dr. Bruno Pettinger as an Alexander von Humboldt fellow in 2002-2003. He was awarded Distinguished Young Scholars by the National Science Foundation of China and Changjiang Distinguished Professors by the Ministry of Education. He serves as an

Associate Editor of Analytical Chemistry (ACS) and the advisory board member of J. Phys. Chem., J. Chem. Phys., and Chemical & Biomedical Imaging. He received National Prizes for Natural Sciences (second prize), Electrochemistry Award of Analytical Chemistry Division of the American Chemistry Society, Young Chemists Award by the Chinese Chemical Society, Young Electrochemists Awards by the Chinese Electrochemical Society and a Fellow of the International Society of Electrochemistry. He is now a vice Chair of Chinese Electrochemical Society, Vice Chair of the Division 7 (Physical Electrochemistry) of International Society of Electrochemistry, a member of Steering Committee of International Conference on Raman spectroscopy, Asian Spectroscopy Conference, International Conference on Tip-enhanced Raman spectroscopy, and International Conference on Advanced Vibrational Spectroscopy. He is the principal investigator of several key national grants, including The Innovative Research Group Project and National Major Scientific Instruments and Equipment Development Project of NSFC. His research is mainly focused on the development of Raman-based methodology and instrumentation for in situ and operando study of electrochemical systems with high time and spatial resolution, covering topics including tip-enhanced Raman spectroscopy, surface-enhanced Raman spectroscopy, and plasmonics.



### **Julie Macpherson**, *University of Warwick, United Kingdom.*

Julie Macpherson is a Professor in the Department of Chemistry at the University of Warwick. She is currently Director of the Warwick Centre for Diamond Science and Technology (DST) and previously served as the co-Director of the UKRI funded Centre for DST, a partnership between 8 Universities and 30 Industrial companies. She is a fellow of the Royal Society of Chemistry, a past University Royal Society Fellow (1999-2008) and Royal Society (RS) Industry Fellow (2014-2018). She obtained her PhD in the area of scanning electrochemical microscopy working with Prof. Patrick Unwin (1993-1996). She has won several awards during her career including the Society of Electroanalytical Chemistry Young Investigators Award (2003), RSC Marlow Medal (2005), RSC and Society of Chemical Industry McBain Medal (2006), RS Innovation Award (2017), RSC Geoffrey Barker Award (2020) and most recently the RSC Tilden Award (2023). Her research laboratory at Warwick has, and continues to focus on, a wide range of activities centred around instrumental methods and applications in electrochemistry. These are predominantly based on the use of carbon materials in electroanalysis and catalysis, sensor development and imaging systems, advanced oxidation and nanostructure fabrication. She has published more than 200 papers, has an H index of 56 and is an author of 7 international patent families and 3 individual patents in the area of boron doped diamond electrodes. Julie is passionate about teaching and education and has won the Chemistry Department Teaching Award five times and the Warwick University Teaching Award. She is currently Editor-in-Chief of the Chemistry Student Guides (RSC), undergraduate chemistry text books which place students at the heart of the book writing process.

## Plenary Lecturers



### **Y. Shirley Meng**, *University of Chicago, USA.*

Dr. Y. Shirley Meng is a Professor at the Pritzker School of Molecular Engineering at the University of Chicago. She serves as the Chief Scientist of the Argonne Collaborative Center for Energy Storage Science (ACCESS) Argonne National Laboratory. Dr. Meng is the principal investigator of the research group - Laboratory for Energy Storage and Conversion (LESC), that was established at University of California San Diego since 2009. She held the Zable Chair Professor in Energy Technologies at University of California San Diego (UCSD) from 2017-2022. Dr. Meng received several prestigious awards, including ECS Battery Division Research Award (2023), the C3E technology and innovation award (2022), the Faraday Medal of Royal Chemistry Society (2020), International Battery Association IBA Research Award (2019), Blavatnik Awards for Young Scientists Finalist (2018), C.W. Tobias Young Investigator Award of the Electrochemical Society (2016) and NSF CAREER Award (2011). Dr. Meng is elected Fellow of Electrochemical Society (FECS), Fellow of Materials Research Society (FMRS) and Fellow of American Association for the Advancement of Science (AAAS). She is the author and co-author of more than 300 peer-reviewed journal articles, two book chapters and eight issued patents. She is the Editor-in-Chief for Materials Research Society MRS Energy & Sustainability. Dr. Meng received her Ph.D. in Advance Materials for Micro & Nano Systems from the Singapore-MIT Alliance in 2005. She received her bachelor's degree in Materials Science with first class honor from Nanyang Technological University of Singapore in 2000.



### **Günter Schmid**, *Siemens Energy Global, Germany.*

Dr. Günter Schmid is a Lead Technical Expert (principal key expert) in Siemens Energy Global GmbH & Co. KG. in the department Transformation of Industry – Sustainable Energy Systems – Product Management. He earned his PhD degree 1993 from the University Ulm (Germany) in organometallic chemistry and crystallography. He joined 1994 Texas A&M University (USA) for a postdoctoral position. Since 1996 he is working within the industrial framework of Siemens companies like Siemens Energy, Siemens AG, Infineon AG and Osram in various positions.

He started in silicon semiconductor industry developing high temperature stable photosensitive dielectrics. Doping of organic semiconductor materials was applied to organic field effect transistors and organic light emitting diodes. Around 2010 he started to work on energy storage materials and electrochemical synthesis, such as electrochemical reduction of CO<sub>2</sub> or water electrolysis, with interests in electro catalysts and industrial electrode and electrochemical cell design. Recently, he focuses on aging in Megawatt PEM electrolyzers and implementing anion exchange membranes in industrial scale systems.

G. Schmid received fellowships from the "Studienstiftung des Deutschen Volkes" and the "Alexander von Humboldt Foundation". He is in the board of Chemistry & Energy of the German Chemical Society (GDCH). In 2004 he received the GMM award of VDE, in 2009 became inventor-of-the-year, in 2021 Fellow of IAAM, and in 2023 he received the IAAM scientist medal. He has submitted more than 300 invention disclosures and published more than 100 papers and keynotes. GS is coordinating the big projects DERIEL, SEGIWA and AEM-Direkt within the flagship initiative H2Giga to implement the hydrogen economy requested by national hydrogen strategy of Germany.

**Hubert Girault**, *EPFL Wallis, Switzerland. The Electrochimica Acta Gold Medal 2024*

## 2024 ISE Prize Winners and Award Lecturers

### Electrochimica Acta Gold Medal

**Hubert Girault**, *École Polytechnique Fédérale de Lausanne, Switzerland*

### ISE-Elsevier Prize in Experimental Electrochemistry

**Peng Chen**, *Cornell University, USA*

### Bioelectrochemistry prize of Division 2

**Fred Lisdat**, *Technische Hochschule Wildau, Germany*

### Jaroslav Heyrovský Prize for Molecular Electrochemistry

**Cyrille Constantine**, *Université Grenoble Alpes, France*

### Brian Conway Prize for Physical Electrochemistry

**Di Wei**, *Beijing Institute of Nanoenergy and Nanosystems, China*

### Tajima Prize

**Yi-Chun Lu**, *The Chinese University of Hong Kong, Hong Kong*

### Zhaowu Tian Prize for Energy Electrochemistry

**Federico Calle-Vallejo**, *University of the Basque Country, Spain*

### ISE-Elsevier Prize in Green Electrochemistry

**Yudong Xue**, *École Polytechnique Fédérale de Lausanne, Switzerland*

### ISE-Elsevier Prize for Applied Electrochemistry

**Edison Huixiang Ang**, *Nanyang Technological University, Singapore*

### ISE-Prize for Electrochemical Material Science

**Nerea Casado**, *University of the Basque Country, Spain*

### Early Career Prize in Electroanalytical Chemistry of ISE Division 1

**Muamer Dervisevic**, *Monash University, Australia*

### Oronzio and Niccolò De Nora Foundation Young Author Prize

**Marco Mazzucato**, *Univeristy of Padova, Italy*

# Summary of Symposia

## Symposium 1 Electroanalysis: From fundamentals towards smart devices

*Sponsored by Division 1: Analytical Electrochemistry*

While conventional electroanalytical techniques continue to improve, the demand for single-use sensors (point of care diagnostics), and sensors capable of operating independently, over long time, with minimal sample treatment and limited maintenance, is growing. These challenging objectives are slowly being met with new methodologies, for example paper-based systems, 3D printed sensors, smart sensors, wearable sensors, and integrated devices. This symposium will explore developments in electroanalysis covering theoretical advances, new techniques, combinations and hyphenated techniques, strategies to produce low-cost electrochemical sensors, calibration-free systems, nano- and micro-electrode sensors, sensor arrays, wearable and integrated sensors, microfluidic systems, and intelligent electroanalytical sensors. **Contributions ranging from** fundamental research, including theoretical and modelling work, to implementation of electrochemical sensing technologies in real world situations are welcome. **KEYWORDS:** Electrochemical sensors: smart & integrated sensors, low-cost sensors, 3D printed sensors, sensor arrays, wearable sensors • Electroanalysis in point of care applications • Instrumentation & hyphenated techniques • Micro & nanoscale electrochemistry • Theory & modelling of electroanalytical methods

**Symposium Organizers:** **Guy Denuault**, University of Southampton, UK. **Mauro Bertotti**, University of São Paulo, Brazil. **Frank-Michael Matysik**, Universität Regensburg, Germany. **Christine Kranz**, Ulm University, Germany.

## Symposium 2 Bioelectrochemistry from fundamentals to sustainable applications

*Sponsored by Division 2: Bioelectrochemistry*

The overarching theme of sustainability weaves through each facet of bioelectrochemistry. Bioelectrochemical approaches can seamlessly connect clinical and environmental analyses, can generate green energy and value-added products, clean biofuels and degradable materials, offering innovative solutions that prioritize sustainability. The aim of this Symposium is to stimulate the discussion among the scientific community on the role of bioelectrochemistry for achieving sustainable development goals, inviting the submission of **experimental as well as theoretical and modeling studies on:** Precision biosensing in personalized medicine; *In-vivo* & *in vitro* bioelectrochemistry; Bioelectrochemical solution for wastewater treatments and for carbon capture and utilization; Biosensors for environmental pollution monitoring and sustainable use of resources; Microbial electrochemistry and biocorrosion; Energy Harvesting, Biofuel Cell, Bioelectrolyzer, Biobatteries; Bioelectrosynthesis with production of value-added chemicals; Fundamental aspect of bioelectrochemistry for enhancing stability and efficiency of bioelectrocatalysis; Photobioelectrochemistry; Sustainable materials for bioelectrochemistry.

**KEYWORDS:** Biosensors for health care, food and environmental applications • *In-vivo* & *in-vitro* bioelectrochemistry • Biofuel cell, bioelectrolyzers & biobatteries • Microbial electrochemistry and biocorrosion • Bioelectrocatalysis • Theoretical and experimental approaches of electron transfer involving biomolecules • Photobioelectrochemistry • Sustainable Materials for bioelectrochemistry.

**Symposium Organizers:** **Ilaria Palchetti**, University of Florence, Italy. **Elisabeth Lojou**, Aix-Marseille University, France. **Omer Yehezkeili**, Technion, Israel. **Nicolas Plumere**, TUM, Germany.

## Symposium 3 Electrochemical and bioelectrochemical synthesis of small molecular products

Sponsored by Division 2: Bioelectrochemistry  
& Division 3: Electrochemical Energy Conversion and Storage

This symposium will cover fundamental and applied studies ranging from novel functional materials to single cells and stacks related to the recent advances in electrochemical and bioelectrochemical conversion of small molecules. The reactions covered will include Carbon Dioxide reduction reaction ( $\text{CO}_2\text{RR}$ ), nitrate reduction reaction ( $\text{NO}_3\text{RR}$ ), nitrogen reduction reaction ( $\text{N}_2\text{RR}$ ), urea electrosynthesis and oxidation reaction of glucose, hydrazine and other small molecules. In this Symposium, the electrochemical and bioelectrochemical conversion from fundamental understanding to industrial application will be considered. **Topics included but not limited are:** Novel electrocatalysts for  $\text{CO}_2\text{RR}$ ,  $\text{NO}_3\text{RR}$ ,  $\text{N}_2\text{RR}$ , urea electrosynthesis, and small molecules oxidation (e.g. glucose, ethanol, methanol, hydrazine, etc); Durability studies of electrocatalysts; Interfacial engineering; Durability studies, post mortem analysis and operando techniques for improved understanding of degradation mechanisms; Computational modelling of the electrocatalysts, cell performance and durability.

**KEYWORDS:** Bioelectrosynthesis • Electrosynthesis (except  $\text{H}_2$ ) • Carbon dioxide electroreduction • Ammonia electrosynthesis • Urea electroproduction.

**Symposium Organizers:** Carlo Santoro (Coordinator), University of Milano-Bicocca, Italy. Corina Andronescu, University Duisburg-Essen, Germany. Fatwa Abdi, City University of Hong Kong, Hong Kong. HyungKuk Ju, Dankook University, South Korea.

## Symposium 4 Lithium-ion batteries: From liquid to solid state

Sponsored by Division 3: Electrochemical Energy Conversion and Storage

Lithium-ion batteries are the dominating electrochemical energy storage technology, powering portable electronics, power tools and (hybrid) electric vehicles, while also gaining increasing importance for the stationary storage of renewable energy. Nonetheless, there is still room for further improvement, including the transition to lithium-metal anode. At the same time, substantial efforts are undertaken to develop and improve alternative battery chemistries. **This symposium will cover:** Recent studies on advanced batteries like Li-ion, Li-S,  $\text{Li-O}_2$ , and Li-metal batteries; Fundamentals on solid-state electrolytes and all-solid-state lithium-batteries, targeting an enhanced understanding of the charge transport and interfacial reactions; The study of the interphases and interfaces at the lithium metal electrode as well as in anode free cell where lithium plating occurs; Various delicate *in/ex situ* and operando analyses and computational simulations to decipher critical fundamentals in understanding interfacial electrochemistry and designing better lithium-based battery materials. Topics included but not limited are: Li-ion and Lithium batteries; Li-air, Li-sulfur, Li metal battery; All solid-state Lithium batteries; Li-ion microbatteries. **KEYWORDS:** Lithium-ion batteries • Lithium-air Lithium-Sulfur • Solid State lithium batteries • *In-situ/operando* techniques for lithium-based batteries • Computer simulations of lithium-based batteries.

**Symposium Organizers:** Jelena Popovic-Neuber (lead organizer), University of Stavanger, Norway. Yu-Guo Guo, Chinese Academy of Sciences, China. Dominic Bresser, Helmholtz Institute Ulm (HIU), Germany. HyungKuk Ju, Dankook University, South Korea. Isidora Cekic-Laskovic, Helmholtz Institute Münster, Germany.

## Symposium 5 New battery chemistries

*Sponsored by Division 3: Electrochemical Energy Conversion and Storage & Division 4: Electrochemical Materials Science*

Upon the last decade, substantial efforts have been undertaken to develop and improve alternative battery chemistries to lithium-ion such as sodium-ion, potassium-ion as well as those based on multivalent charge carriers. Aqueous batteries are also becoming increasingly popular. Although the design of full cells is a hot topic, the development of high performance electrode and electrolyte materials, with regards to capacity, operating potential, power capability, sustainable aspects, and cycling ability, is a key issue to further promote these new chemistries. This symposium is therefore devoted to recent progress in alternative chemistries to Li-based batteries, with special care to new materials for electrodes and new electrolytes. The design of electrode architectures, electrolytes, interfaces, and cell shape/configurations will also be considered. Note that Lithium-based technologies are excluded in this symposium. **Topics included but not limited are:** Post-lithium batteries (Na, K); Multivalent batteries (Mg, Ca, Al,...); Dual-ion batteries; Aqueous batteries; New electrode materials and electrolyte; *In-situ/operando* techniques; Simulation/modeling of new battery chemistries.

**KEYWORDS:** Post-lithium batteries • Multivalent batteries • Dual-ion batteries • Aqueous batteries • New electrode materials and electrolytes • *In-situ/operando* techniques • Simulation/modeling of new battery chemistries.

**Symposium Organizers:** *Rebeca Marcilla (lead organizer), IMDEA Energy Institute, Spain. Tetsu Ichitsubo, Tohoku University, Japan. Matteo Bianchini, University of Bayreuth, Germany. Sonia Dsoke, University of Freiburg, Germany.*

## Symposium 6 Hydrogen production and conversion: Advances in water electrolysis and fuel cells

*Sponsored by Division 3: Electrochemical Energy Conversion and Storage*

Electrochemical water electrolysis is a promising option for carbon-free production of hydrogen to feed fuel cells and operate the transition to sustainable energy. Many challenges still need to be tackled towards the wider adoption of these technologies for hydrogen production and conversion. This symposium will highlight research directions that emerged in recent years address activity, stability, and scarcity of the materials used in electrodes and membranes. This symposium will cover both fundamental and applied research related to design and development of new materials, including membranes, catalysts, and electrodes and their integration at the level of fuel cell and electrolyser cells and stacks to enable efficient energy conversion and storage.

**Topics included but not limited are:** Design and synthesis of novel electrocatalysts for ORR/OER and HOR/HER; Data driven catalyst discovery enabled by automated chemistry and artificial intelligence; Investigations of catalyst layer and porous transport layers and their integration with each other; Testing in model experiments under realistic conditions, such as accelerated mass transport; Interfacial engineering; Development of novel ionomers and membranes; Development of novel ceramic and solid oxide separators; *In-situ, operando* and post mortem techniques to understand performance of components and cells; Theoretical methods at multiple length scales to understand, predict and optimise device and materials performance. **KEYWORDS:** Leveraging atomic scale insights for improved device performance • Low and high temperature fuel cells and electrolysers • ORR/OER and HOR/HER electrocatalysts • PEM and AEM membranes development and characterisation • Solid oxide separators • Advanced characterization • Modelling components and assemblies.

**Symposium Organizers:** *Ifan Stephens (lead organizer), Imperial College London, UK. Svitlana Pylypenko, Colorado School of Mines, USA. Kai Exner, University Duisburg-Essen, Germany. Aaron Marshall, University of Canterbury, New Zealand.*

## Symposium 7 High power devices: Electrodes and electrolytes, limiting factors or assets for power capability?

*Sponsored by Division 3: Electrochemical Energy Conversion and Storage*

This symposium will be dedicated to the most recent investigations related to fast storage devices with a focus on the influence of the electrode materials and designs, as well as the electrolytes, on the power performance. The goal of this symposium is to address several aspects related to these fast processes, from fundamental investigations of electrode/electrolyte interface to the development and evaluation of innovative devices. **Topics included but not limited are:** Supercapacitors (carbons and pseudocapacitive materials); High power battery electrodes including hybrid and asymmetric devices; Aqueous, organic, ionic liquids, solid electrolytes; Microsupercapacitors; *In-situ/operando* characterization methods of electrode/electrolyte interfaces. Innovative devices and designs; Theory and modeling.

**KEYWORDS:** High Power Batteries • Supercapacitors • Electrolyte for high power devices • Electrode materials for high power devices • Interfaces in high power devices • Theory and modeling of high power devices.

**Symposium Organizers:** *Maria Arnaiz (lead organizer), CIC Energigune, Spain. Binson Babu, Shiv Nadar Institution of Eminence, India. Andrea Balducci, Friedrich-Schiller-University Jena, Germany. Elzbieta Frackowiak, Poznan University of Technology, Poland.*

## Symposium 8 Corrosion, coatings, and nanostructures for a sustainable future

*Sponsored by Division 4: Electrochemical Materials Science*

The symposium is intended to be a forum to present and discuss the fundamental understanding of corrosion processes and practical applications of a range of corrosion protection and coating methods. It also covers nanostructure and 3D structure formation using electrochemical anodic and cathodic processes. It will address the recent advances in electrochemical technologies, corrosion and electrodeposition modelling and various coating and surface treatment methods and novel electrochemical fabrication of nanostructures. The symposium will cover specific topics like: Corrosion and corrosion protection: new experimental or theoretical approaches; Coatings and surface treatments: electrochemical anodic and cathodic coatings, self-healing coatings, environmentally acceptable surface treatments; Modelling and simulations: mechanistic understanding of corrosion and electro-deposition; Electrochemical formation of nanostructures and 3D structures; Electrochemistry of MXenes. **KEYWORDS:** Corrosion and its protection • coatings and surface treatments • electrodeposition • electrochemical nano- and 3D-structure formation • electrochemistry of MXenes • modelling and simulation • electrochemical characterizations.

**Symposium Organizers:** *Hiroki Habazaki, (lead organizer), Hokkaido University, Japan. Carmen Pérez, University of Vigo, Spain. James Noël, Western University, Canada. Andreas Bund, Technische Universität Ilmenau, Germany.*





## **Symposium 9** Durability of materials for energy conversion and storage: Mechanism, mitigation and performance

*Sponsored by Division 4: Electrochemical Materials Science*

Energy conversion and storage materials are essential for the development of sustainable energy technologies. However, these materials are susceptible to degradation under operating conditions, which can lead to reduced performance and lifetime. This symposium provides a forum for researchers to discuss the latest advances in understanding the durability of materials and mitigating materials degradation in electrochemical energy conversion and storage systems, including advanced secondary batteries, supercapacitors, several types of fuel cells, electrolysis and Perovskite solar cells. **The symposium will cover specific topics like:** Materials degradation in batteries, fuel cells, electrolysis, solar cells; Fundamental mechanisms of degradation; Mitigation strategies; Characterization techniques for degradation; Modelling and simulation of degradation processes; System performance implications. **KEYWORDS:** Materials degradation in electrochemical energy conversion and storage • fundamental mechanisms of degradation • mitigation strategies • characterization techniques for degradation • modeling and simulation of degradation processes • system performance implications.

**Symposium Organizers:** *Mireille Turmine (lead organizer), Sorbonne Université, France. Jan M. Macak, University of Pardubice, Czech Republic. Bernard Lestriez, Université de Nantes, France. Arno Bergmann, Fritz-Haber-Institute of the MPG, Germany.*



## Symposium 10 Green electrochemistry for a sustainable world

*Sponsored by Division 5: Electrochemical Process Engineering and Technology*

Due to the overexploitation of natural resources, scientists and engineers are now being encouraged to seek solutions that are not only more effective to ensure the availability of resources, but also more efficient, sustainable and integrated. Emerging concepts are arising as a result of a comprehensive approach to managing resources (water, soil, air, energy), such as the nexus concept, sustainable development goals (SDGs), carbon neutrality, energy transition, and circular economy. The integration of knowledge from various disciplines can create a synergistic effect and effectively tackle a wide range of challenges to sustainability. This has fostered the interplay between science (materials science, electrochemistry, green chemistry) and process engineering and technology. These interactions can potentially create new opportunities and possibilities to maximize societal advantages. Hence, the implementation of electrical power in chemical processes holds significant importance in establishing a sustainable world and paving the way for a clean future. **The symposium will focus on specific topics such as:** Innovative designs of electrochemical reactors for environmental applications, and the development of new materials for these reactors; Electrochemical systems and technology for water purification and disinfection; wastewater treatment and regeneration as well as soil remediation and decontamination of polluted gaseous streams. Electrorefinery and recycling concepts, linking waste treatment with production of high value-added chemicals to support circular economy strategies; Development of combined or hybrid electrochemical technologies for environmental protection; Photoelectrochemical processes to provide green routes for environmental protection; Water-Energy nexus; emphasizing the use of renewable energy for water; soil and air treatment as well as the energy recovery/production from such treatments; Scale-up of electrochemical processes, and study of durability of materials for environmental applications; Combination of experimental and computational research, as well as modeling, in green electrochemical processes. **KEYWORDS:** Clean Environment (Water, soil and air) • Green electrochemistry (Water-Energy nexus) • Durability of materials for environmental applications • Reactor design • Scale-up of electrochemical processes • Photoelectrochemical processes for environmental applications • Circular economy: decontamination linked to resource recovery.

**Symposium Organizers:** *Ignasi Sirés (lead organizer), Universitat de Barcelona, Spain. Manuel Rodrigo, Universidad de Castilla - La Mancha, Spain. Minghua Zhou, Nankai University, China. Claudia Weidlich, DECHEMA-Forschungsinstitut, Germany.*



## Symposium 11 Electrochemical technologies for energy, and industrial electrosynthesis at scale

*Sponsored by Division 5: Electrochemical Process Engineering and Technology*

The symposium will concentrate on the practical advancements in electrochemical energy conversion, storage, and electrosynthesis. The primary emphasis will be on the components of fuel cells and electrolyzers, including systems, stacks, and industrial processes. Electrochemical technologies also enable the production or conversion of basic chemical compounds as well as high value-added products. Here, fundamental knowledge is applied to systems such as electrolyzers, fuel cells, flow batteries and other reactors. **The subjects that will be addressed include**, but are not restricted to, the following: Utilizing electrochemistry for energy production, energy conversion, and energy storage; Development of electrodes and membranes; Electrosynthesis of oxidants and production of high-value products, as well as electrochemical separations; Heat, current distribution and resistance as well as advanced modelling and diagnostics in the large systems; Current collectors, interconnects and bipolar plates; Flow-dynamic engineering; Electrochemistry and electrolyzers in chemical fuel production and chemical synthesis; Electrochemical devices development and their applications.

**KEYWORDS:** Energy conversion and storage from cells to stacks • Redox-flow batteries • Electrosynthesis of basic chemical compounds • High value-added products • Scale up of the electrolyzers and fuel cell systems • Membranes and separators technologies • Modelling and diagnostics from electrodes to stacks • Electrochemical devices development.

**Symposium Organizers:** *Carlos Ponce de Leon (lead organizer), University of Southampton, UK. Thomas Turek, Clausthal University of Technology, Germany. Rakel Wreland Lindström, KTH - Royal Institute of Technology, Sweden. Carlos A Martínez-Huitle, Federal University of Rio Grande do Norte, Brazil.*

## Symposium 12 Molecular spectro-photo-electrochemistry and electrosynthesis

*Sponsored by Division 6: Molecular Electrochemistry*

This symposium is focused on studies of fundamental chemical transformations on the molecular level, initiated either electrochemically and/or by light. These topics are connected with electron distribution, delocalization and communication within one molecule which influences substantially molecular geometry, reactivity and redox properties. Therefore, correlation of experimental data with quantum chemical approach is important. Stress will be given to new molecules with potential future application in medicine, agriculture, catalysis, transformation of solar energy, dyes, molecular electronics, etc. **Other related topics:** Coupling of optical, photo- and electrochemical methodologies; Various spectroelectrochemical methods (UV-vis-, IR-, EPR-, NMR-, MS- etc.); Electroanalytical studies of molecular electrochemical processes; Advanced methods and materials for "green" electrosynthesis; Electrochemically generated luminescence; DFT calculations and molecular dynamics; Catalysis in molecular electrosynthesis. **KEYWORDS:** Photo-electroactive molecules • Organometallic and coordination compounds • Photo- and electrocatalysis • Green synthesis • Structural aspects • Reaction mechanisms • Electrochemiluminescence (ECL) • Correlation with quantum chemical calculations.

**Symposium Organizers:** *Jiří Ludvík (lead organizer), J. Heyrovsky Institute of Physical Chemistry, Czech Republic. Mahito Atohe, Yokohama National University, Japan. Robert Francke, Leibniz Institute for Catalysis, Germany. Jose H. Zagal, University of Santiago de Chile, Chile.*

## Symposium 13 Mechanisms in molecular electrochemistry for (bio-)catalysis, (bio-)sensing and electronics

Sponsored by Division 1: Analytical Electrochemistry, Division 2: Bioelectrochemistry & Division 7: Physical Electrochemistry

A simple electron (/charge, in general) transfer taking place at molecular level can be at the origin of many contemporary applications in very diverse fields of our daily life. This symposium is focused on recent advances in the charge and mass transfer/transport processes occurring at electrode surfaces, suitably functionalized with new electroactive, bio-inspired and biomimetic molecules (including polymers). The novel materials and architectures, designed and crafted at molecular level, can enable unprecedented functionality from the physical electrochemistry point of view concerning charge transfer/transport properties. Furthermore, they can serve as novel molecular components to devise low-cost, low-power (bio-inspired) electronics, optoelectronics, (bio-)chemical sensing platforms, highly efficient catalysts. The aim is to (i) highlight fundamental approaches to devise novel functionalized molecular systems, 2D and 3D material architectures, with particular attention to synthetic receptors and biomimetic interfaces, and (ii) investigate how the structure of molecules affects the molecular interactions, the charge transfer/transport phenomena in molecular systems, molecular junctions and (biomimetic) interfaces to develop reliable and robust molecular or nanoscale bio-inspired devices for next-generation (opto-)electronics, sensing and catalysis. We will be happy to see contributions in both experimental and computational areas on **the following topics**: Fundamental electron/charge transfer and mass transport processes in molecular (organic, organometallic, coordination), biomolecular, biomimetic, and supramolecular systems, as well as (conducting) polymers; Nano-/Micro-scale approaches to investigate the charge transfer and catalytic properties at the interfaces of novel hybrid functionalized electrode materials; New experimental (synthetic, in-situ spectroscopic) and hyphenated methodologies (e.g. SPR, SERS, etc. coupled with electrochemical techniques); New theoretical approaches to elucidate the underlying mechanistic principles of molecular transformations involving charge transfer step(s); Modified surfaces, functionalized 2D and 3D material architectures; Molecular junctions and electronics; Biomimetic interfaces, especially based on synthetic receptors (e.g. peptides, aptamers, imprinted polymers, etc.), enabling efficient electron/charge transfer and/or specific redox or electroluminescent activities for sensing and electrocatalysis. **KEYWORDS**: Charge transfer and transport mechanisms • Structure-reactivity relationship • Single-entity properties • Advanced electroactive materials • 2D/3D molecularly designed electrode architecture and biomimetic interfaces • (Bio-)molecular electrocatalysis • Coupled optical and electrochemical methodologies.

**Symposium Organizers:** *Federico Polo (lead organizer), Ca' Foscari University of Venice, Italy. Magdaléna Hromádová, J. Heyrovský Institute of Physical Chemistry, Czech Republic. Hye Jin Lee, Kyungpook National University, South Korea. Valentina Pifferi, University of Milan, Italy. Kristina Tschulik, Ruhr-University Bochum, Germany.*



## Symposium 14 Experimental and theoretical methods for atomistic understanding of electrochemical interfaces

*Sponsored by Division 7: Physical Electrochemistry*

The chemistry of the electrode-electrolyte interface is a key factor for the performance of electrochemical devices such as fuel cells, batteries, electrolyzers, and capacitors. Capturing this interfacial chemistry requires powerful experimental methods and simulations. From the experimental side, methods such as (operando) X-ray spectroscopy, vibrational spectroscopy, X-ray scattering, and scanning tunneling microscopy provide key insight into the morphology, composition and (electronic) structure of the interface. Meanwhile, theoretical methods provide insight into reaction mechanisms, molecular arrangements, kinetics, electronic structure properties, and atomic-scale dynamics. To disentangle the full complexity of interfacial chemistry, a combination of theoretical and experimental methods is often necessary. Therefore, **this symposium** not only provides a platform to discuss recent developments and results of advanced experimental and theoretical methods, but also fosters experiment-theory collaboration. To further promote experiment-theory collaboration, a collaboration speed-dating session will be organized. **KEYWORDS:** Experiment-theory collaboration • Scanning probe microscopy • (Operando) spectroscopy • X-ray scattering • Density Functional Theory • Double layer models • Multiscale modelling.

**Symposium Organizers:** *Rik Mom (lead organizer), Leiden University, Germany. Katharina Doblhoff-Dier, Leiden University, Germany. Helmut Baltruschat, Uni Bonn, Germany. Olaf Magnussen, Christian-Albrechts-Universität zu Kiel, Germany.*

## Symposium 15 Artificial intelligence for electrochemistry

*Sponsored by Division 7: Physical Electrochemistry*

The fast development of artificial intelligence (AI) is transforming the world in many ways, and is also changing how scientists do research. Many long-standing problems in electrochemistry that electrochemists dream of solving, all of sudden, seem within reach with the help of AI. In this symposium, we wish to bring together researchers from different backgrounds to discuss in what ways AI can reshape electrochemistry, with **particular emphasis on the following questions:** To what extent can AI acceleration on ab initio modeling of electrochemical systems bridge the gap between simulation models and experiment? How far can AI push the spatial and temporal limits of state-of-the-art in situ/operando characterization techniques in probing electrochemical systems? How can AI/robotics help close the loop of multi-level optimization of electrochemical systems ranging from materials design, hierarchical structure engineering to device optimization?

**KEYWORDS:** AI accelerated atomistic modeling • AI assisted characterization • automated experiment • Electrochemical interfaces/interphases • complex electrolyte and electrode materials • Intelligent optimization of electrochemical devices.

**Symposium Organizers:** *Jun Cheng (lead organizer), Xiamen University, China. Marialore Sulpizi, Ruhr Universität Bochum, Germany. Katrin Domke, University of Duisburg-Essen, Germany. De-en Jiang, Vanderbilt University, USA.*

## Symposium 16 General session - Hidden treasures and diversity of electrochemistry

*Sponsored by all Divisions*

The symposium is intended to be a forum to present and discuss all ISE areas that are not covered or not sufficiently covered by the other symposia to provide a space for the full diversity of topics in electrochemistry. Moreover, the general session should be a forum for contributions of specific scientific topics of electrochemistry, which are of high importance but not yet large enough for an entire symposium. Hence, this symposium aims to encourage research in the fields of electrochemical sciences and technology, as well as increase interest in and involvement in ISE among the participants, and provide the opportunity to discuss recent advances in electrochemical research with industrial partners. For this, and taking into consideration that the competition for oral presentation slots is extremely high, the symposium will also provide the possibility for short presentations of PhD students covering all topics of electrochemistry\*.

**Possible topics comprise** but are by no means limited to: 30 years after Heinz Gerischer: New aspects of semiconductor electrochemistry, basic electrochemistry of functional materials (perovskites, MOFs, MXenes, ...), nanoelectrochemistry and nanoelectrochemical tools, electrochemistry in confined volumes, electrochemistry at liquid-liquid interphases.

\*PhD students who want to participate in the competition for the short oral presentations are requested to mention this in their submitted abstract.

**KEYWORDS:** Semiconductor electrochemistry • liquid-liquid interfaces • functional materials • nanoelectrochemistry • confined electrochemistry • PhD student presentations

**Symposium Organizers:** *Wolfgang Schuhmann (lead organizer), Ruhr-Universität Bochum Germany. Priscilla G. L. Baker, University of the Western Cape, South Africa. Silvia Cere, University of Mar, Argentina. Zhong-Qun Tian, Xiamen University, China.*



## Conference Venue

The meeting's venue will be held at the "**Rheingoldhalle**", a recently refurbished modern conference center.

Rheinstraße 66, 55116 Mainz, Germany - <https://www.mainz-congress.com>

It is located in the city center directly at the riverside. The old city center is home to many hotels, cafes and restaurants and can be easily reached by a short walk. The bus from main station to the conference center takes 8 min and runs every 5 min during daytime. There is also a very large car park at the conference center.

## Transportation

**Airport:** Frankfurt am Main Airport (FRA) is the largest international hub of air traffic in Germany. It has more than 1000 flight connections per day.

**Distance to Mainz:** Less than 30 km corresponding to approx. 30 min by public transportation.

**Railway:** Mainz central station has many connections to major German cities and close-by European metropolises. It has **four to eight train connections per hour to Frankfurt Airport**.

## Climate

Mainz experiences a mild climate. In September the average high and low temperatures range from **11 °C** to **21 °C**.

## Accommodation

In Mainz you can find more than 4000 hotel rooms. The conference center cooperates with numerous hotels, with total capacity of nearly 3000 rooms. Hotel accommodation for a wide range of prices are within walking distance, which are supplemented by many more possibilities in the Rhein-Main area, The Hilton Hotel is next to the conference center. Prices are generally moderate.

# 76<sup>th</sup> Annual Meeting

of the International  
Society of Electrochemistry



## Call for Papers

Authors are invited to submit a one-page abstract in English, including figures, tables and references. Abstracts must be submitted online through the ISE website (<https://annual76.ise-online.org>).

The site will be open for the submission of abstracts on **1st December 2024**. The closing date for the submission of abstracts will be **28 March 2025**.

For details please refer to the ISE website.



## PLUS - Three Satellite Meetings *on cutting-edge topics:*

Symposium on Insights into Gas Diffusion  
Electrodes: From Fundamentals to  
Industrial Applications & Beyond the OER

**2 - 4 September 2025, Berlin, Germany.**

<https://www.mpi-magdeburg.mpg.de/gde2025>

Electrifying Organic Synthesis:  
From Alternative Synthetic Access to  
Greener Production Methods

**3 - 5 September 2025, Mülheim (Ruhr), Germany.**

<https://ISE-EOS2025.cec.mpg.de>

ELectroLytes and Interfaces in PoSt-Li  
BatteriEs (ELLIPSE)

**15 - 16 September 2025, Ulm, Germany.**

<https://www.postlithiumstorage.org/en/ellipse>

# 77<sup>th</sup> Annual Meeting

of the International Society of Electrochemistry



**Electrochemistry for the New World**  
6-11 September, 2026 - ***Sydney, Australia***



<https://annual77.ise-online.org>

## Important Dates

Abstract submission opens: **1 December 2025**

Abstract submission ends: **28 March 2026**

Conference begins: **6 September 2026**

## Conference Venue

The meeting will be held at the **International Convention Centre Sydney** (ICC Sydney), a new major conference center in **Darling Harbour, Sydney Australia** – <https://iccsydney.com.au>.

It is located in the city center directly on Sydney Harbour and is a restaurant and tourist precinct. Many hotels can be easily reached by a short walk. The conference centre is only a 10 minute walk from both Central and Townhall stations. There is also a huge car park at the conference center.

## Transportation

**Airport: Kingsford Smith International Airport (SYD)** is the largest international hub of air traffic in Australia which is reached nonstop from the west coast of the Americas, Asia, Middle East and Africa and with one stop from Europe.

Sydney Airport connects to 43 international destinations and 46 domestic destinations. The airport is just 11 minutes from Central Station by train and 24 minutes by taxi.

## Climate

The conference will be held during spring in Sydney with the temperature **rather mild** being between a typical minimum of **11 °C** at night and a maximum of **21 °C** during the day.

## Accommodation

Being a large city, **Sydney** has over **40,000 hotel rooms** with all major hotel chains represented. AirBnB also operates extensively within Australia. Within a **10-minute walk** of the Convention Centre are **43 hotels** with **5 hotels directly within Darling Harbour** including Novotel, Sofitel, a couple of boutique hotels and a hostel.

# Organizing Committee

Justin Gooding (Co-Chair) (Sydney)  
Debbie Silvester-Dean (Co-Chair) (Perth)  
Zaiping Guo (Adelaide)  
Nick Birbilis (Melbourne)  
Ruth Knibbe (Brisbane)  
Katharina Krisher (Munich)  
Plamen Atanassov (Irvine)  
Taek Dong Chung (Seoul)  
Monica Santamaria (Palermo)  
Francesca Soavi (Bologna)

# Local Organizing Committee

Justin Gooding (Sydney)  
Debbie Silvester-Dean (Perth)  
Zaiping Guo (Adelaide)  
Nick Birbilis (Melbourne)  
Ruth Knibbe (Brisbane)  
Kaye Kang (Sydney)  
Cameron Bentley (Melbourne)  
Saimon Silva (Melbourne)



## Invitation

You are warmly invited to the **77<sup>th</sup> Annual Meeting** of the International Society of Electrochemistry in **Sydney, Australia**, from September 6<sup>th</sup> until September 11<sup>th</sup>.

Sydney is a vibrant multicultural city with extraordinary natural beauty with its deep water harbour set within a yellow sandstone basin, historic convict precincts, skyscrapers designed by world-renowned architects and stunning beaches with the weather to match. All this is closely integrated with the city center where the meeting will be held. The meeting venue is the brand new **International Convention Centre Sydney** (ICC Sydney) situated on the water at the **Darling Harbour** restaurant precinct where **Wildlife Zoo** Sydney and the Sydney **Aquarium** are also located. Just a short walk or ferry ride away is the iconic Sydney **Opera House** and Sydney **Harbour Bridge**.

Slightly further afield are the Botanic Gardens, harbour and ocean beaches, and national parks within the city including the hiker's heaven of the **Blue Mountains** and **Royal National Park** (the world's second National park). A little over an hour's flight are other major cities including **Melbourne** and **Adelaide** – where satellite meetings are planned – and the Tasmanian World Heritage wilderness.

Sydney is a technology leader, being the 7<sup>th</sup> top digital city in the world and the home of major technology-based companies such as the hearing implant pioneer **Cochlear** and the sleep company **ResMed**. Sydney also has the top-ranked start-up ecosystem in the southern hemisphere. The conference is held within 6 km from three of the world's top-ranked universities with world-leading programs in solar cell technology, quantum computing and medical technologies to ensure the local scientific community is keen to engage with our ISE visitors. **We welcome you to Sydney in 2026!**

## Scientific Themes

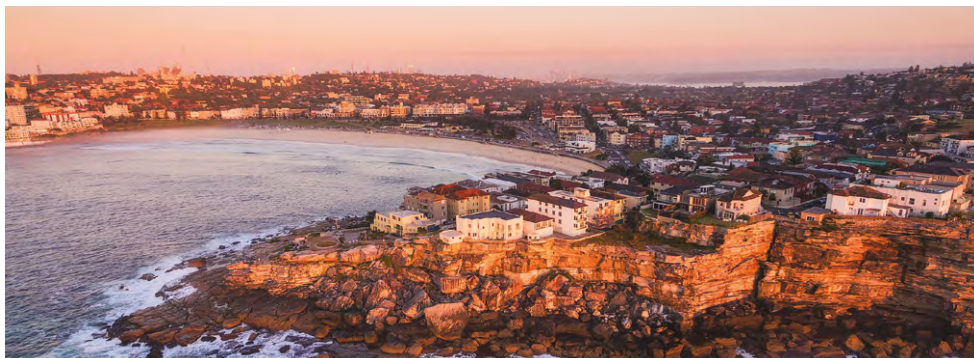
- Electroanalytical chemistry
- Electrocatalysis
- Batteries
- Fuel cells
- Corrosion
- Single entity electrochemistry (molecular, analytical, physical)
- Scanning Probe Electrochemical Microscopy
- Energy
- Ammonia Synthesis
- Hydrogen generation
- Electrochemiluminescence
- Photoelectrocatalysis
- Minerals electrochemistry
- Ionic liquid electrochemistry
- Liquid/liquid electrochemistry
- Solar cells
- Microbial electrochemical systems
- Electrochemistry for medicine/point of care
- Devices/manufacturing
- Wearable sensors

## Call for Papers

Authors are invited to submit a one-page abstract in English, including figures, tables and references. Abstracts must be submitted online through the ISE website (<https://annual77.ise-online.org>).

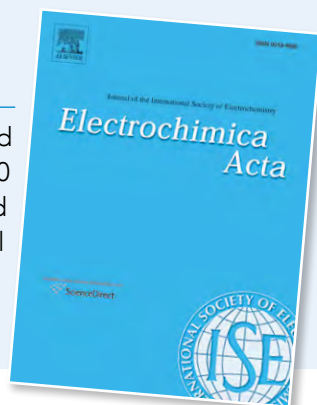
The site will be open for the submission of abstracts on **1st December 2025**. The closing date for the submission of abstracts will be **28 March 2026**.

For details please refer to the ISE website.



## Electrochimica Acta the Scientific Journal of ISE

**Electrochimica Acta** is the official journal of ISE (published by Elsevier). *Electrochimica Acta* comprises over 20,000 pages per year, including a number of special issues, and is available to members at a reduced rate. The Editorial Board is selected by the Society and appointed by the Publisher. Its current Impact factor is 5.5.



## ISE Awards

ISE recognizes outstanding scientists and young promising researchers through its awards:

- Electrochimica Acta Gold Medal
- Frumkin Memorial Medal
- Katsumi Niki Prize for Bioelectrochemistry
- Bioelectrochemistry Prize of ISE Division 2
- Brian Conway Prize for Physical Electrochemistry
- Alexander Kuznetsov Prize for Theoretical Electrochemistry
- Jaroslav Heyrovsky Prize for Molecular Electrochemistry
- Tajima Prize
- Zhaowu Tian Prize for Energy Electrochemistry
- ISE Prize for Electrochemical Materials Science
- ISE-Elsevier Prize for Applied Electrochemistry
- ISE-Elsevier Prize for Experimental Electrochemistry
- ISE-Elsevier Prize for Green Electrochemistry
- Early Career Analytical Electrochemistry Prize of ISE Division 1
- Oronzio and Niccolò De Nora Foundation Young Author Prize
- Electrochimica Acta and ISE Travel Awards for Young Electrochemists



## Benefits from ISE Membership

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### Benefits to Individual ISE Members include:

- Reduced registration fees at ISE Meetings.
- Reduced subscription rates for the official journal of the Society (Electrochimica Acta) and for several other journals: Journal of Electroanalytical Chemistry, Electrochemistry Communications, Bioelectrochemistry, Journal of Power Sources, Journal of Applied Electrochemistry, Electrocatalysis, and Journal of Solid State Electrochemistry.
- Access to the full membership directory which contains the addresses of all ISE members.
- Eligibility for potential support from the ISE Presidential Fund and the ISE Regional Funds.
- Eligibility for potential sponsoring of independently organized meetings.
- Up to date information on ISE activities and other electrochemical events.

## How to become an ISE member

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To become an ISE member, please fill in the Membership Application Form at [www.ise-online.org](http://www.ise-online.org) and submit it online to the ISE office. In the application form you should select up to three divisions and indicate two sponsoring ISE members.

Should it be difficult for you to find these sponsors, please write to the ISE Office e-mail address [info@ise-online.org](mailto:info@ise-online.org)

The yearly membership fee is **50 Euros** (15 Euros for ages below 30).

## Contact

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