

Connecting electrochemists since 1949

# The International Society of Electrochemistry 2026

ise-online.org
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# International Society of Electrochemistry

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 3100 Individual Members and Corporate Members. Its membership comes from more than 70 countries from all continents.

# **ISE Objectives**

- 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**

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.



Annual Meeting 2026: Sydney, Australia



Annual Meeting 2027: Glasgow, Scotland

# **ISE Topical Meetings**

These meetings highlight highimpact 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.

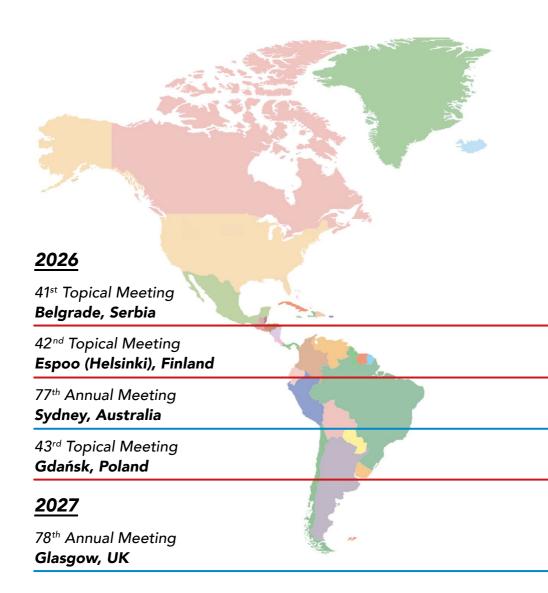


**Topical Meeting 2026: Helsinki, Finland** 

# **ISE Sponsored Meetings**

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.

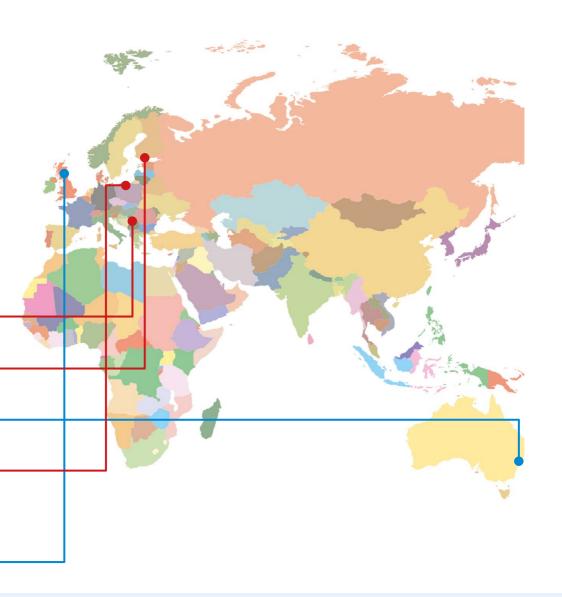




# Forthcoming Annual and Topical Meetings

# **Annual Meetings**

- 77<sup>th</sup> Annual Meeting **Sydney, Australia**: 6-11 September 2026
- 78th Annual Meeting Glasgow, UK: 5-10 September 2027



# **Topical Meetings**

- 41st Topical Meeting **Belgrade, Serbia** : 7 10 June 2026
- 42<sup>nd</sup> Topical Meeting **Espoo (Helsinki), Finland** : 23 26 June 2026
- 43<sup>rd</sup> Topical Meeting **Gdańsk, Poland** : 27 30 September 2026

# 41st Topical Meeting

of the International Society of Electrochemistry



Corrosion and surface modification at the forefront of 21st century green electrochemistry processes and technology

7-10 June, 2026 - Belgrade, Serbia



www.ise-online.org/meetings/topical41

# **Important Dates**

Abstract submission opens: 10 December 2025 Abstract submission ends: 5 February 2026

Conference begins: 7 June 2026

# Conference Venue

The meeting will be held at the **University of Belgrade**, **Faculty of Civil Engineering**, Bulevar kralja Aleksandra 73, 11120 Belgrade, Serbia. It is situated in the broader city centre, within walking distance of several tourist attractions and approximately a 25-minute walk to the riverbanks. The Faculty of Civil Engineering is an impressive structure, regarded as the most beautiful example of Academism in Belgrade and recognized as a cultural heritage site.

# **Transportation**

Belgrade is easily reachable by plane, train, or car. **Nikola Tesla International Airport**, just 20 minutes from the venue and city center, connects directly to many European capitals and intercontinental destinations. Serbia has one of the most **liberal visa policies in Europe**, permitting EU and non-EU participants (including the USA, China, and Russia) to attend the ISE Annual Meeting without visa procedures or costs. City bus transportation is free.

# **Climate**

Serbia has a **moderately continental climate** with four distinct seasons. Summer in Belgrade is pleasant with sunny, warm days. In early June, daytime temperatures average **20 °C** to **30 °C** (above 30 °C is uncommon).

# Accommodation

Belgrade offers a wide range of hotels across different categories. Many 3-star to 5-star hotels are located within a **10-minute walk from the meeting venue**. The Hotel Metropol Palace is just a 2-minute walk away. High-quality, comfortable, and reasonably priced accommodations are also available in several hundred private rental apartments and categorized hostels.

# Restaurants

Belgrade boasts a **diverse culinary scene** that merges traditional Serbian dishes with global flavors. You can enjoy rustic kafanas with grilled meats and rakija, as well as modern bistros and fine dining. The city caters to global tastes with Italian, Asian, Middle Eastern, and vegan-friendly options, complemented by **vibrant street food** and **riverside dining**.

# Organizing Committee

Jelena Bajat (Co-Chair), University of Belgrade, Serbia Gavrilo Šekularac (Co-Chair), University of Belgrade, Serbia Đenđi Vaštag (Co-Chair), University of Novi Sad, Serbia

# Local Organizing Committee

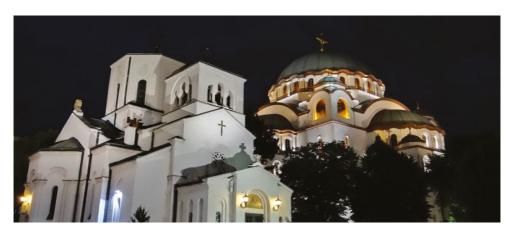


Aleksandar Dekanski, Univ. of Belgrade Mila Krstajić Pajić, Univ. of Belgrade Nevenka Elezović, Univ. of Belgrade Rastko Vasilić, Univ. of Belgrade Ivana Perović, Univ. of Belgrade

# Invitation

You are warmly invited to the 41st Topical Meeting of the International Society of Electrochemistry which will take place in Belgrade, Serbia, from 7 to 10 June 2026. The meeting will be hosted by the University of Belgrade – Faculty of Civil Engineering, situated in a historic cultural heritage building in the broader city center. Belgrade, a lively metropolis of over two million residents, serves as the cultural, educational, and scientific hub of Southeast Europe. It is also home to the renowned Belgrade School of Electrochemistry, celebrated for its ongoing contributions to the field. As the leading academic institution in Serbia and the surrounding region, the University of Belgrade offers an intellectually stimulating environment. The 42nd Topical Meeting will provide a dynamic platform for exchanging research and exploring innovation in corrosion and surface modification, fostering collaboration across disciplines in electrochemistry and promoting green processes and technologies.

We look forward to welcoming you to Belgrade, where outstanding science combines with inspiring surroundings.



# Scientific Scope of the Conference

The meeting will cover all aspects of corrosion science and surface modification using a wide array of methods, ranging from fundamentals to applications in various engineering processes and technologies. It aims to unite researchers from diverse fields related to surface modification to explore its effects on material properties and durability, including novel environmentally friendly coatings, advanced electrode materials in electrocatalysis, batteries and supercapacitors, bioelectrochemistry, biomedical applications, and sensor performance, among others.

Different aspects of developing advanced modified "green" functional surfaces will offer an interdisciplinary approach to surface functionalization and characterization, while also fostering discussion for further advancements in the boundaries of fundamental and applied electrochemistry and material science.

# 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 (www.ise-online.org/meetings/topical41).

The site will be open for the submission of abstracts on 10 December 2025. The closing date for the submission of abstracts will be 5 February 2026.

For details please refer to the ISE website.



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

of the International Society of Electrochemistry



Sustainable electrochemical energy materials: Theory and practice

23 - 26 June '26 - Espoo (Helsinki), Finland



www.ise-online.org/meetings/topical42

# **Important Dates**

Abstract submission opens: 15 December 2025 Abstract submission ends: 25 February 2026

Conference begins: 23 June 2026

# Conference Venue

The conference will take place at the renovated **Undergraduate Center** located on the **Aalto University campus**, which was established in the 1950s. The appearance of the campus area reflects the vision of the renowned Finnish architect Alvar Aalto, while other celebrated Finnish architects have designed individual buildings. The campus is conveniently served by a frequent metro connection to Helsinki city, with a travel time of 10-15 minutes.

# **Transportation**

**By air**: Helsinki-Vantaa is Finland's largest airport, with frequent flights to major European cities and regular transport to Helsinki. The easiest way to Aalto University is by regional train from the airport to Helsinki central station (about 30 minutes), then take the metro to Aalto University stop (approximately 15 minutes).

**By sea**: Helsinki is accessible from Stockholm via overnight ferries docking near the city center. Ferries from Tallinn to Helsinki run multiple times daily, taking 2-3 hours. Various ferry operators use different harbors in Helsinki, with Katajanokka and West Terminal providing convenient local transport to the city and Aalto University campus.

# Climate

Finnish summer weather is mild and varies each year, with temperatures from 10 to 30 °C and occasional rain. The average **maximum temperature in June is 20 °C** and the **minimum is 10 °C**. Finland's rich nature invites outdoor exploration year-round.

# Accommodation

There are many hotels near Espoo, ranging from budget-friendly options to high-end accommodations. One notable choice is the **Original Sokos Hotel Tapiola Garden**, located conveniently in central Espoo, offering comfortable lodging and well-equipped conference facilities.



# Organizing Committee

Tanja Kallio (Chair),
Aalto University, Finland
Pekka Peljo (Co-Chair),
Aalto University, Finland
Kari Laasonen (Co-Chair),
Aalto University, Finland

# Local Organizing Committee

Milla Vikberg, Aalto University
Daniel Martin Yerga, Aalto University
Lasse Murtomäki, Aalto University
Yaolin Xu, Aalto University
Paulina Pršlja, Aalto University
Olli Himanen, VTT
Farhan Ali, VTT
Marja Vilkman, VTT
Johan Bobacka, Åbo Academy University
Pertti Kauranen, LUT University

# Invitation

You are cordially invited to the 42nd Topical Meeting of the International Society of Electrochemistry, which will be held in **Espoo**, **Finland**. The conference will take place on the Aalto University campus in Espoo, situated in the **Helsinki region** along the Baltic Sea shore.

Realizing that the **green transition** requires the adoption of various electrochemical energy conversion and storage technologies has generated intensive research on both established and novel solutions. More sustainable materials, processes, and technologies are needed to enhance these transitions. We aim to spark intensive discussions regarding both fundamental and applied aspects of electrochemically active materials and systems, covering batteries (e.g., lithium, sodium, and flow batteries), electrolysers, and other electrochemical energy technologies.



# 42<sup>nd</sup> Topical Meeting of the International Society of Electrochemistry

# Scientific Themes

Sustainable electrochemical technologies are vital for the green transition. We invite contributions that improve understanding and development of components for electrochemical energy conversion and storage. This conference will showcase advancements in cutting-edge technologies, materials, and fundamental processes in these applications. Topics will cover applied research on material properties, theoretical aspects, tools for innovation, and in-situ and operando studies of functionality and aging mechanisms.

We invite presentations covering, but not limited to, these topics:

- Computational applications for material design.
- Method development and algorithms for electrochemical purposes.
- Tools and methodologies to accelerate materials discovery and development.
- In-situ and operando characterization for real-time diagnostics of electrochemical processes.
- Aging mechanisms and mitigation strategies.
- System integration, cell-level performance, and optimization.
- Novel materials and emerging technologies.
- Techno-economic and life-cycle analysis.

# 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 (www.ise-online.org/meetings/topical42).

The site will be open for the submission of abstracts on **15 December 2026**. The closing date for the submission of abstracts will be **25 February 2026**.

For details please refer to the ISE website.



# 77th Annual Meeting

of the International Society of Electrochemistry



**Electrochemistry for the New World** 

6-11 September, 2026 - Sydney, Australia



www.ise-online.org/meetings/annual77

# **Important Dates**

Abstract submission opens: 1 December 2025 Abstract submission ends: 28 March 2026 Conference begins: 6 September 2026

# Organizing Committee

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

# Local Organizing Committee



Maria Forsyth (Melbourne)
Cameron Bentley (Melbourne)
Zaiping Guo (Adelaide)
Nick Birbilis (Melbourne)
Ruth Knibbe (Brisbane)
Kaye Kang (Sydney)
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!



# **Plenary Lecturers**



### Maria Forsyth, Deakin University, Australia.

Maria Forsyth AM ATSE (Australian Academy of Technology and Engineering), FAA (Fellow of the Australian Academy of Sciences), is a visiting Professor and Deakin Distinguished Professor at Deakin University and an Ikerbasque Professorial Fellow at the University of the Basque Country, Spain. Professor Forsyth has worked at the forefront of energy materials research and has consistently made breakthrough discoveries in novel electrolytes. Her research has focused on understanding the phenomenon of charge transport within these materials and at metal/electrolyte interfaces present in all electrochemical applications. She has supervised over 100 PhD students and is a co-author of more than 880 journal and conference publications. Professor Forsyth is a

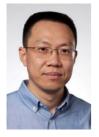
director at TMPR Consulting and co-founder/director of DyNati Energie, a recent energy technology startup.



# Shana Kelley, Northwestern University, USA.

Dr. Shana Kelley is the President of the Chan Zuckerberg Biohub Chicago and the Neena B. Schwartz Professor at Northwestern University in the Departments of Chemistry, Biomedical Engineering, and Biochemistry & Molecular Genetics. The Kelley research group has pioneered new methods for tracking molecular and cellular analytes with unprecedented sensitivity. Dr. Kelley's work has been recognized with the ACS Inorganic Nanoscience Award, the Pittsburgh Conference Achievement Award, the Steacie Prize, an Alfred P. Sloan Research Fellowship, a Camille Dreyfus Teacher-Scholar Award, an NSF CAREER Award, a Dreyfus New Faculty Award, and she was also named a "Top 100 Innovator" by MIT's Technology Review. Kelley is also a Guggenheim Fellow, a Fellow

of the Royal Society of Canada, the Canadian Academy of Health Sciences, and the American Institute of Biological and Medical Engineering. She is an elected member of the American Academy of Arts and Sciences and the National Academy of Inventors. Her work is extensively cited, with over 80 papers cited more than 80 times. Kelley is an inventor on more than 50 patents issued worldwide. She is the founder of four life sciences companies: GeneOhm Sciences (acquired by Becton Dickinson in 2005), Xagenic Inc. (acquired by General Atomics in 2017), CTRL Therapeutics (founded in 2019), and Arma Biosciences (founded in 2021).



# Yi-Tao Long, Nanjing University, China.

Yi-Tao Long is a Professor at the School of Chemistry and Chemical Engineering, Nanjing University. He earned a B.Sc. (1989) from Shangdong University and a Ph.D. (1998) from Nanjing University. After two years of postdoctoral study at Heidelberg University, he worked as a Research Associate at the University of Saskatchewan and the University of Alberta in Canada, and as an Associate Specialist at the University of California, Berkeley. He returned to Nanjing University in 2019 after spending 12 years as a full professor at East China University of Science and Technology.

His main research focuses on electrochemistry at nanoconfinement, including nanopore electrochemistry for single-molecule analysis, nanospectroelectrochemistry for

biointerphase studies, and nanoelectrochemical instruments for life sciences. Professor Long has published over 400 peer-reviewed scientific journal papers, 5 books or chapters, and 4 PCT patents. He has authored more than 400 articles in journals such as Nat. Nanotechnol., Nat. Chem., Nat. Protoc., Nat. Methods, and others, with over 20,000 citations and an H-index of 84. He currently serves as an Associate Editor for Chemical Science and as a member of the editorial or advisory boards for Chemical Reviews, ChemElectroChem, Research, Theranostics, and Microchimica Acta. He is a Fellow of the Royal Society of Chemistry (RSC), the Chinese Chemical Society (CCS), and the International Society of Electrochemistry (ISE). He was an honorary

# Plenary Lecturers

visiting professor at the University of Birmingham (2014-2020) and a visiting professor at the University of Bath (2011-2016). He received the CCS Liang Shuquan Award for Fundamental Research in Analytical Chemistry (2018) and the RSC Faraday Medal (2023). He serves on the RSC Faraday Council committee and has co-chaired several RSC Faraday Discussions on Electrochemistry (2018, 2021, and 2024).



# Beatriz Roldán Cuenya, Fritz Haber Institute, Germany.

Prof. Dr. Beatriz Roldán Cuenya is currently the director of the Interface Science Department and interim director of the Inorganic Chemistry Department at the Fritz Haber Institute in Berlin, Germany. She began her academic career by earning her MSc in Physics in Spain in 1998 and her PhD in Physics in Germany in 2001. Her postdoctoral research took her to the Department of Chemical Engineering at the University of California, Santa Barbara, USA. In 2004, she joined the Department of Physics at the University of Central Florida as an assistant professor and became a full professor in 2012. In 2013, she moved back to Germany and became a chair professor of Solid State Physics at Ruhr-University Bochum. She then joined the FHI in 2017.

Prof. Dr. Beatriz Roldan Cuenya has authored 250 peer-reviewed publications, six book chapters, and six patents. She has supervised 77 postdoctoral researchers and 37 PhD students. She serves on the editorial boards of the Journal of Catalysis and Chemical Reviews. She is a member of the Academia Europaea and the Germany National Academy of Sciences Leopoldina. Recently, she received the ACES – Margarita Salas Award from the Association of Spanish Researchers in Sweden and the Margarita Salas Foundation. She was awarded the Manchot Research Professorship from TU Munich (2023), the 2022 Paul H. Emmet Award from the North American Catalysis Society, the Röntgen Medal (2022), the Faraday Medal from The Electrochemistry Division of the UK Royal Society of Chemistry (2022), the AVS Fellow Award (2021), and the International Society of Electrochemistry-Elsevier Prize for Experimental Electrochemistry (2021).



### **Jan Rossmeisl,** University of Copenhagen, Denmark.

Jan Rossmeisl is a professor in the Department of Chemistry at the University of Copenhagen. He joined the university in 2015 from a position as an associate professor at the Danish Technical University. Since 2020, he has been heading a Danish National Research Foundation, Center of Excellence, the Center for High Entropy Alloy Catalysis, and in 2024, he received an ERC synergy grant along with three others. Jan is coauthor of more than 250 papers and is listed among the Clarivate highly cited researchers. Jan Rossmeisl is a Fellow of the Royal Society of Chemistry.

His research focuses on how theory and simulations can provide real and valuable insights into electrochemical reactions. Jan has a close and integrated collaboration

with experimentalists, sometimes in a supporting role and sometimes in a leading role. He was an early adopter of quantum mechanical simulations in electrocatalysis. He co-developed the computational hydrogen electrode in 2003, a method that includes the potential by referencing protons and electrons to hydrogen molecules. Despite its simplicity, it has become a staple in the field. His contributions extend to studying vital electrocatalytic systems, including the oxygen evolution reaction crucial for water electrolysis and oxygen reduction. His early papers on oxide catalysts and the universal picture of the reaction have set the benchmark for researchers in the field. Notably, Jan's exploration of scaling relations in electrocatalysis has provided a lasting framework for understanding catalytic activity trends among different surfaces. This fundamental contribution helps calculate the efficiency limits of catalytic reactions. In 2020, Jan and co-workers won a Danish National Research Foundation center of excellence, the Center for High Entropy Alloy Catalysis, based on the idea of utilizing high entropy alloys as catalysts. High Entropy Alloys represent a paradigm shift in catalysis, yielding not only intriguing catalyst materials but also profound insights into catalysis.

# 77th Annual Meeting of the International Society of Electrochemistry

# 2025 ISE Prize Winners and Award Lecturers

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Richard Compton, University of Oxford, Great Britain

### Tajima Prize

Jeffrey Dick, Purdue University, USA

# ISE Prize for Electrochemical Energy Conversion and Storage of Division 3 in Honour of Bruno Scrosati

Laurence Croguennec, University of Bordeaux, France

### Zhaowu Tian Prize for Energy Electrochemistry

Stephen Dongmin Kang, Seoul National University, Republic of Korea

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

Erlind Mysliu, SINTEF Industry, Norway

# Alexander Kuznetsov Prize for Theoretical Electrochemistry

Adam Weber, Lawrence Berkley National Laboratory, USA

# ISE Prize for Electrochmical Material Science - Energy

Rebecca Pittkowski, University of Copenhagen, Denmark

### ISE Prize for Electrochmical Material Science - Corrosion

Oumaïma Gharbi, Sorbonne Université, Paris, France

### Early Career Prize of Division 1

Samantha Gateman, Western University, Canada

# J. Heyrovsky Prize for Molecular Electrochemistry

Robert Francke, Leibniz Institute for Catalysis (LIKAT), Rostock, Germany

# ISE-Elsevier Prize for Experimental Electrochemistry

Bin Ren, Xiamen University, China

### ISE-Elsevier Prize for Applied Electrochemistry

María Arnaiz, CIC energiGUNE, Parque Tecnológico (Álava), Spain

### ISE-Elsevier Prize for Green Electrochemistry

Alexander Bagger, Technical University of Denmark, Lyngby, Denmark

### Katsumi Nikki Prize in Bioelectrochemistry

Alexander Kuhn, University Bordeaux, France

# Summary of Symposia

# Symposium 1 Electrochemistry at the interface: From liquid-liquid to point-of-care devices

Sponsored by **Division 1**: Analytical Electrochemistry

The symposium will focus on recent developments in electrochemical methods using biphasic systems, such as potentiometric ion-selective electrodes and polarised liquid-liquid interfaces, with applications in analytical, environmental, physical, pharmaceutical, and biomedical research. It will address current research, technological progress, and future challenges in the field. As electrochemistry at the polarised liquid-liquid interface is typically confined to the laboratory, we aim to incorporate single-use sensors and point-of-care devices, providing a platform for new ideas that bridge the two fields. While traditional electroanalytical methods continue to advance, there is an increasing demand for single-use sensors and point-of-care diagnostics that can function autonomously for extended periods with minimal sample handling and maintenance.

**KEYWORDS**: Electrochemistry at the liquid-liquid interface, ITIES, Ion transfer voltammetry • Biomembranemimic interfaces • Potentiometric ion-selective electrodes • Smart and low-cost sensors, 3D-printed sensors, sensor arrays, and wearable technologies • Electroanalysis for Point-of-Care Applications.

Symposium Organizers: Emilia Witkowska Nery, Institute of Physical Chemistry, Polish Academy of Sciences, Poland; Micheál D. Scanlon, University of Limerick, Ireland; Damien Arrigan, Curtin University, Australia; Yang Liu, James Cook University, Australia; Jeffrey Dick, Purdue University, USA.

### Symposium 2 Electrochemical biosensors: The new world technology

Sponsored by **Division 1**: Analytical Electrochemistry & Division 2: Bioelectrochemistry

Biosensors utilise the superior recognition capabilities of biological systems and combine them with a wide range of physicochemical transducers to enable simple and user-friendly diagnostic systems for an increasingly diverse range of applications, enhancing our daily lives. The symposium focuses on the latest advances in electrochemical biosensors, aiming to provide practical solutions to the challenges of the modern world. From environmental analysis to healthcare, electrochemical biosensors can be a relevant and valuable tool for applications in resource-limited countries, communities in remote locations without access to centralised analytical laboratories, or in the development of reliable analytical tools for detecting rapidly evolving hazards. We aim to promote scientific discussion around the presentation of cutting-edge biosensor technologies, including emerging biorecognition strategies, novel transducer materials, and the latest applications, with an emphasis on those with real-world applications. We will also encourage and welcome discussions on the future of electrochemical biosensors and approaches to making them more affordable, user-friendly, and readily accessible.

**KEYWORDS**: New biorecognition strategies in electrochemical detection • Nanomaterials, novel transducers, sustainable and affordable biosensors • Cell analysis and cancer-cell detection • Lab-on-achip, multiplexed and implantable devices • Biosensors for environmental, agro-food, security, forensic, and healthcare applications • Al and machine learning in biosensors • Translation and commercialisation of biosensors

Symposium Organizers: Saimon Moraes Silva, La Trobe University, Australia; Gabriel Negrão Meloni, University of São Paolo, Brazil; Felipe Conzuelo, Nova University Lisbon, Portugal; Ilaria Palchetti, University of Florence, Italy

# 77th Annual Meeting of the International Society of Electrochemistry

### **Symposium 3** Bioelectrochemistry: Scientific discoveries and applications

Sponsored by **Division 2**: Bioelectrochemistry

This symposium explores a broad spectrum of bioelectrochemistry discoveries, ranging from fundamental research to impactful real-world applications, and pushes the boundaries of knowledge to foster sustainable futures for all. Understanding bioelectrochemical mechanisms, reactions, and processes is crucial for developing improved technologies and applications. Sitting at the intersection of multiple disciplines, bioelectrochemical technologies are set to play a key role in promoting healthy living for everyone, as well as supporting smart society initiatives such as chemical monitoring and analysis, environmental and waste remediation and valorisation, chemical transformations for energy production or creating added-value products, and the development of sustainable materials. **Topics include, but are not limited to:** Single biomolecule studies; In-vivo and in-situ bioelectrochemistry; Bioelectrochemistry of model systems that mimic in vivo environments; Microbial electrochemistry (general) and impacts on corrosion; Biofuel cells and bioenergetics; Bioelectrosynthesis for value-added products; Bioelectrochemistry principles: methods, models and approaches; Photobioelectrochemistry; Environmental bioelectrochemistry.

**KEYWORDS**: Biosensors • Bioelectrocatalysis • Bioelectrochemical transformations for value-added materials • In-vivo bioelectrochemistry • Microbial electrochemistry • Biomolecular electron transfer • Photobioelectrochemistry • Experimental and theoretical approaches in bioelectrochemistry • Sustainable futures.

**Symposium Organizers: Dónal Leech**, School of Biological & Chemical Sciences, University of Galway, Ireland; **Janice Limson**, Biotechnology Innovation Centre, Rhodes University, Makhanda, South Africa; **Yang Liu**, James Cook University, Australia.

# Symposium 4 Understanding reaction mechanisms and degradation of electrocatalysts for Power-to-X

Sponsored by **Division 3**: Electrochemical Energy Conversion and Storage, **Division 2**: Bioelectrochemistry & **Division 4**: Electrochemical Materials Science

Electrochemical technologies are crucial for producing highly valuable chemicals, including fuels and added-value compounds such as hydrocarbons, alcohols, and ammonia. Developing efficient (bio) electrocatalysts for these reactions is a complex process that involves design, synthesis, characterisation, and optimisation. In this context, both experimental and theoretical methods support the identification of promising materials and help understand the evolution and degradation of the synthesised electrocatalysts. This symposium will bring together academic and industrial researchers to share the latest advancements in electrocatalysis. **Topics include, but are not limited to:** Small molecules conversion (CO<sub>2</sub>, urea, ammonia, nitrogen, etc.); Electrocatalytic hydrogenation (ECH); Electrocatalytic biomass conversion; Electrode processes and interfacial electrochemistry; Advanced modelling and diagnostics; Computational and Data-driven approaches to electrocatalysis; Understanding nanoscale phenomena in electrocatalysis

**KEYWORDS**: Small molecules conversion (CO<sub>2</sub>, urea, ammonia, nitrogen, etc.) • Electrocatalytic hydrogenation (ECH) • Electrocatalytic biomass conversion • Electrode processes and interfacial electrochemistry • Advanced modelling and diagnostics • Computational and Data-driven approaches to electrocatalysis • Understanding nanoscale phenomena in electrocatalysis

**Symposium Organizers: Magda Titirici**, Imperial College London, UK; **Paolo Bollella**, University of Bari, Italy; **Fengwang Li**, University of Sydney, Australia; **Yu Katayama**, Osaka University, Japan.

### **Symposium 5** Aqueous-based batteries and high-power devices

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

This symposium will focus on the latest research related to energy storage systems based on aqueous electrolytes, as well as fast storage processes in both aqueous and organic electrolytes, and their application in real-world scenarios. **Topics include, but are not limited to:** Aqueous metal-ion batteries; Metal-air batteries; Capacitive and pseudocapacitive materials; Water-in salt electrolytes for energy storage devices; Electrode/electrolyte interface; In-situ and operando investigations; Redox flow batteries.

**KEYWORDS**: Aqueous-based batteries • Metal-air batteries • Zn-ion batteries • Supercapacitors • High-power devices • Hybrid devices • Pseudocapacitive materials • Simulation/modelling.

**Symposium Organizers: Yuki Yamada**, Osaka University, Japan; **Ho Seok Park**, Sungkyunkwan University, South Korea; **Guoxiu Wang**, University of Technology Sydney, Australia; **Fabio La Mantia**, University of Bremen, Germany.

### **Symposium 6** Advances in hydrogen production and utilisation

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

Water electrolysis provides a promising method for producing carbon-free hydrogen to power fuel cells and facilitate the transition to sustainable energy. However, several issues remain concerning the performance, long-term durability, and sustainability of hydrogen production and conversion systems. This symposium focuses on innovative approaches to address these challenges and will feature fundamental and applied research on the design and development of materials, components, membrane-electrode assemblies, and stacks. **Topics include, but are not limited to:** Polymer electrolyte membranes and ionomers; Proton ceramic and solid oxide separators; Interfacial engineering; Electrocatalysts for ORR and HOR; Catalytic layer development and novel architectures; Durability studies of components and cells/stacks; Postmortem and operando techniques for improved understanding of cell performance and degradation; Computational modelling of the performance and durability of cells.

**KEYWORDS**: Low and high temperature fuel cells and electrolysers • PEM, AEM and bipolar membranes • Ceramic separators • Novel HOR/ORR electrocatalysts and electrode architectures • Advanced characterisation, including in situ/operando techniques • Modelling components and assembly • Degradation mechanisms.

Symposium Organizers: Kenji Miyatake, Waseda Univ., Japan; Anna Fischer, Univ. of Freiburg, Germany; Jessica Allen, Univ. of Newcastle, Australia; Kelsey Stoerzinger, Univ. of Minnesota, USA



# 77th Annual Meeting of the International Society of Electrochemistry

### **Symposium 7** Novel materials for lithium and beyond lithium batteries

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

This symposium focuses on recent advancements in materials (electrodes, electrolytes, and components) for lithium-ion and "beyond lithium-ion" batteries. Lithium-ion batteries dominate the market; however, there is a need to improve materials for Li-metal batteries to enhance their safety, longevity, and recyclability. Other battery concepts based on more abundant elements (Na, K, Mg, Ca, Al, organics...) require the discovery of materials that have high capacity, operate at suitable potentials, and are long-lasting. The design and synthesis of such materials are key to advancing these new technologies and moving towards a more sustainable way of storing energy. **Topics include, but are not limited to:** Synthesis and characterisation of new electrode and electrolyte materials; Novel materials for Li-ion batteries (cathodes, anodes, electrolytes, binders,...); Novel materials for Na<sup>+</sup>, K<sup>+</sup>, Mg<sup>2+</sup>, Ca<sup>2+</sup>, Al<sup>3+</sup> batteries; Novel electrode architectures; Advanced characterisation tools (materials, interfaces, SEI investigation); Ionic liquid electrolytes; Solid state electrolytes (inorganic, hybrid, polymeric, etc.); "Anode-less" concepts; Al & Machine learning for battery materials discovery; Recycling of batteries with a materials perspective; Other Li or Na-based technologies (Li-air, etc.).

**KEYWORDS**: Lithium-ion batteries • multivalent batteries • dual-ion batteries • metal-sulfur batteries • non-aqueous • new electrode materials and architectures • solid-state electrolytes • in situ/operando techniques • simulation/modelling.

Symposium Organizers: Naoaki Yabuuchi, Yokohama National University, Japan; Isao Shitanda, Tokyo University of Science, Japan; Mega Kar, Deakin University, Australia; Vito di Noto, University of Padova, Italy; Janine Mauzeroll, McGill University, Canada.

### **Symposium 8** Progress in surface modification and corrosion mitigation

Sponsored by **Division 2**: Bioelectrochemistry, Division 4: Electrochemical Materials Science, **Division 5**: Electrochemical Process Engineering and Technology & **Division 7**: Physical Electrochemistry

The aim of this symposium is to provide a platform for discussing recent advances in surface modification, with a focus on reducing material degradation and developing customised functionalities. These aspects are crucial for improving material durability. Consequently, this has a direct impact on the global economy and environmental sustainability. Topics include, but are not limited to: Environmentally acceptable surface treatments; Protective coatings: functional films, self-healing coatings; Electrodeposition; Corrosion and passivation mechanisms: new experimental or theoretical approaches; Machine learning in corrosion protection; Electrochemical behaviour of biocompatible materials; Localised electrochemistry and surface analytical techniques in corrosion research; Surface and coatings modelling and simulation; Wear corrosion; Treatments for corrosion.

**KEYWORDS**: Surface modification • corrosion • passivation • electrochemical techniques • corrosion modelisation • protective coatings.

**Symposium Organizers: Monica Santamaria**, University of Palermo, Italy; **Samantha M. Gateman**, Western University, London, Ontario, Canada; **Anthony O'Mullane**, Queensland University of Technology, Australia; **Masayuki Itagaky**, Tokyo University of Science, Japan.

# Symposium 9 Fabrication and characterisation of electroactive nanostructured materials

Sponsored by **Division 4**: Electrochemical Materials Science & **Division 5**: Electrochemical Process Engineering and Technology

The symposium will explore all aspects of electrochemical functional materials, inviting papers on new developments in synthesising electroactive materials with various nanostructures and experimental approaches to improve the operation of electrochemical devices. Emphasis will be placed on nanoscale self-organised systems such as anodic nanotubes and nanopores on metals and alloys, and on modifications of nanostructures via cathodic and anodic routes, with a focus on in-situ techniques for identifying electrochemical processes in nanoelectrodes. **Topics include, but are not limited to:** Electrode nanomaterials, including semiconductors, metals, oxides and polymers for various electrochemical devices; Self-organised formation of nanostructured materials by anodic and cathodic routes; Electroactive redox polymers; Electrochemical synthesis of 1D and 2D nanostructures; In-situ and ex-situ characterisation techniques; Applications of electroactive materials, including soft robotics, supercapacitors, and solar cells.

**Symposium Organizers: Hiroki Habazaki**, Hokkaido University, Japan; **Damian Kowalski**, University of Warsaw, Poland; **Lucy Gloag**, Australian National University, Australia; **Chi-Chang Hu**, National Tsing Hua University, Taiwan.



# 77th Annual Meeting of the International Society of Electrochemistry

# Symposium 10 Sustainable electrochemistry and systems to protect water and the environment

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

The overexploitation of natural resources has prompted scientists and engineers to develop solutions that not only guarantee access to essential raw materials but also enhance efficiency, sustainability, and integration. Holistic approaches to resource management—covering water, soil, air, and energy have led to emerging frameworks such as the nexus concept, sustainable development goals (SDGs), carbon neutrality, energy transition, circular economy, and closed-loop systems. Connecting knowledge across disciplines boosts synergies, enabling a more effective response to sustainability challenges. This interdisciplinary collaboration, especially among materials science, electrochemistry, green electrochemistry, and process engineering, opens new opportunities to maximise societal benefits. Harnessing electrical energy in chemical processes is crucial for advancing sustainability and fostering a cleaner future. Topics include, but are not limited to: Innovative electrochemical reactor designs for environmental applications and novel material development; Electrochemical technologies for water purification, wastewater treatment, waste/pollution remediation, and air pollution control (including environment-oriented CO<sub>a</sub>RR strategies); Electrorefining and recycling approaches that integrate waste treatment with the production of high-value chemicals, supporting circular economy principles; Hybrid and combined electrochemical techniques for environmental protection; Photoelectrochemical strategies to develop sustainable solutions for pollution control; The Water-Energy nexus, emphasising renewable energy utilisation in air, water, and soil treatments, along with energy recovery from these processes; Scale-up of electrochemical systems and the durability of materials in environmental applications; The integration of experimental research, computational modelling, and simulations to advance green electrochemical technologies; Applying electrochemical science and technology in industry to develop greener manufacturing methods and closed-loop processing.

**KEYWORDS**: Advanced oxidation and reduction processes for clean water, air and soil • Electrochemical technology for green production • Green industry • Photoelectrochemical applications • Scale-up of systems for environmental protection • Sustainable electrochemical engineering • Use of sustainable materials in electrochemical reactors • Waste valorisation for the circular economy.

Symposium Organizers: Ignasi Sirés, Universitat de Barcelona, Spain; Ricardo Salazar, Pontificia Universidad Católica de Chile, Chile; Helena Yuan Wang, The University of Melbourne, Australia; Minghua Zhou, Nankai University, China.



### **Symposium 11** Scale-up of electrochemical systems

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

Electrochemical systems are essential for producing and transforming key chemical compounds, from elemental reactants to valuable products such as oxidants, hydrogen peroxide, hydrogen, carbon-based fuels, and ammonia. This session will link fundamental electrochemical principles with practical applications in electrolysers, fuel cells, flow batteries, and other large-scale reactors. The symposium aims to highlight progress in scaling up electrochemical technologies for energy and industrial production, focusing on electrochemical energy conversion, storage, and electrosynthesis, as well as fuel cells, electrolysers, and large-scale industrial applications. **Topics include, but are not limited to:** Electrochemical solutions for energy generation, storage, and conversion; Advancements in electrode and membrane technologies for industrial applications; Electrosynthesis of valuable chemicals and electrochemical separation techniques; Optimisation of large-scale systems, including heat management, current distribution, and advanced modelling; Engineering of critical components, such as current collectors, interconnects, and bipolar plates; Flow dynamics and system design to enhance efficiency and performance; Electrochemical processes in fuel production and their integration into chemical synthesis; Development and industrial applications of electrochemical devices; Application of Al and ML in the design and scaling up of electrochemical systems.

By addressing these key areas, the symposium aims to accelerate the industrial adoption of electrochemical technologies, with a special focus on devices and engineering concepts for energy conversion and storage, as well as for electrosynthesis of high-value chemicals and fuels.

**KEYWORDS**: Electrochemical engineering and scaling up of electrochemical systems • Energy conversion and storage from cells to stacks • Redox-flow battery systems • Electrosynthesis of basic chemical compounds • High value-added products • Membranes and separator technologies • Modelling and diagnostics from electrodes to stacks • ML in electrochemical systems • Al in electrochemical systems.

Symposium Organizers: Carlos Ponce de León, University of Southampton, United Kingdom; Carlos A. Martínez-Huitle, Universidade do Rio Grande do Norte, Brazil; Tom Rufford, The University of Queensland, Australia.



# 77th Annual Meeting of the International Society of Electrochemistry

# Symposium 12 Key challenges in molecular electrocatalyst platforms and surface reactivity: Experimental, theoretical and computational advances

Sponsored by **Division 6**: Molecular Electrochemistry

Electrocatalytic platforms that utilise molecular catalysts as building blocks play a vital role in surface electrodic reactivity, which is essential for fundamental research and practical applications. Therefore, a strategic approach focused on rational design is necessary to improve electrocatalytic performance. When molecular catalysts are attached to electrode surfaces through various strategies and configurations, these systems serve as excellent platforms for investigating and understanding the key factors and descriptors that influence surface electrodic reactivity. Notably, electronic, electrostatic, conducting, magnetic, and spin effects are critical contributors. Advances in theoretical and computational methods facilitate the prediction and clarification of the fundamental reactivity of molecular catalysts for specific electrochemical reactions. This symposium aims to present the latest quidelines on diverse experimental (1D, 2D, and 3D), theoretical, and computational approaches for creating highly active electrode devices based on molecular catalysts on electrodic surfaces. These approaches aim to establish well-defined active sites, spanning from fundamental to applied platforms, and to investigate the effect of various external stimuli on their performance. Topics include, but are not limited to: Theoretical and experimental reactivity descriptors to specific reactions and interactions in molecular catalysts on electrode surfaces; DFT calculations; Self-assembled molecular electrocatalyst systems; Interfacial-dependent electrocatalyst; Spin-dependent electrocatalysis; Magnetic-dependent electrocatalysis; Electrolyte effects on electrocatalyst performance; Electron and charge transfer processes on 1D, 2D and 3D electrocatalytic systems; Ion-conduction mechanism; Structure relaxation relationship.

**KEYWORDS**: Molecular catalysts and modified electrodes • DFT-based modelling • Reactivity descriptors • Molecular self-assembling • Interfacial and electrolyte effects • Spin-dependent electrocatalysis • Magnetic fields • Electron and charge transfer processes.

**Symposium Organizers: Ingrid Ponce**, Santiago de Chile University, Chile; **Fangfang Chen**, Deakin University, Australia; **José H. Zagal**, Santiago de Chile University, Chile.



# Symposium 13 Molecular electronics and electrochemistry: From fundamentals to function and application

Sponsored by Division 6: Molecular Electrochemistry & Division 7: Physical Electrochemistry

This symposium will showcase electrochemical measurements across various configurations — including classical two-electrode systems used in traditional molecular electronics and molecular junction studies, three-electrode systems for standard electrochemical research, and hybrid four-electrode arrangements, enabling the investigation of charge transfer across molecular junctions under adjustable electrochemical potentials. It will also examine how this understanding can be utilised for applications such as electrosynthesis, catalysis, molecular materials development, and molecular electronics. Special emphasis will be given to recent advances at the interface of electrochemistry and molecular electronics, focusing on systems where molecules, whether in solution or solid state, as isolated entities or organised into assemblies such as self-assembled monolayers (SAMs), function as chemical or active electronic components.

Contributions that utilise electrochemical measurements to understand and manipulate molecular structure, function, or chemical reactions are strongly encouraged. Investigations involving single-molecule junctions, nanogaps, nanopores, and other electrified interfaces focused on electronic functionality are also welcomed. Additionally, the symposium will explore the impact of photo-electrochemistry and photoluminescence on molecular systems, highlighting how light-induced processes can influence charge transfer, reaction mechanisms, and molecular functionality, with potential applications in sensing, energy conversion, and molecular electronics.

Experimental studies that combine electrochemical, spectroscopic, and microscopic techniques, along with theoretical modelling of charge transfer and molecular dynamics, are encouraged. This symposium aims to deepen our understanding of molecular-level charge control and its application to next-generation electrochemical research and emerging technologies. It seeks to bring together researchers from various disciplines to share insights and explore new directions in electrocatalysis. Whether through fundamental research or practical applications, your contributions will help to shape the future of electrode/molecule interfacial science.

**KEYWORDS**: Molecular electronics • Electrochemically initiated reaction mechanisms • Charge transfer at the molecular scale • Structure-redox properties relationship • Photo-electrochemistry and luminescence • New electrosynthetic processes • Correlation of experimental and calculated data.

Symposium Organizers: Nadim Darwish, Curtin University, Australia; Jiří Ludvík, J. Heyrovský Institute of Physical Chemistry, Czech Republic; Paul Low, University of Western Australia, Australia; Xuefeng Guo, Peking University, China; Angel Cuesta, University of Aberdeen, United Kingdom.



# 77th Annual Meeting of the International Society of Electrochemistry

# Symposium 14 In situ and operando methods for characterising electroactive materials and interfaces

Sponsored by **Division 3**: Electrochemical Energy Conversion and Storage & **Division 4**: Electrochemical Materials Science & **Division 7**: Physical Electrochemistry

Electrochemical interfaces are naturally dynamic systems where macroscopic behaviour results from molecular and electron transfer processes at the electrode surface, alongside complex physical, chemical, and structural changes within the bulk. Understanding the connection between these properties and the electrochemical characteristics of such systems is crucial for a wide range of applications, from energy conversion and storage (e.g., batteries, fuel cells, electrolysers) to sensing and corrosion. In situ and operando methods offer a reliable way to investigate these properties under electrochemically controlled conditions, and ongoing innovations are developing that combine electrochemical analysis with spectroscopy, scattering, and microscopy. **Topics include, but are not limited to:** Optical methods (UV-visible, IR, Raman, and surface-enhanced spectroscopy); X-ray spectroscopy (absorption, emission, photoelectron spectroscopy); X-ray diffraction and 3D computed tomography; Magnetic resonance (NMR, EPR); Scanning probe microscopy (AFM, STM, SECM and related techniques).

Recent advances in instrumentation and increased access to national facilities, such as synchrotrons, have opened up numerous new opportunities to investigate electroactive materials and interfaces in unprecedented detail. Combining these methods with theory, modelling, and simulation enables a much fuller understanding of electrochemical systems and their development.

This symposium aims to bring together recent advances in the practice of in situ and operando characterisation of electrochemical systems, from both experimental and theoretical perspectives. The focus is on showcasing methodological developments and new instrumentation, while highlighting how these advanced techniques can provide new insights into interfacial reactions and processes to support the selection and development of materials.

**KEYWORDS**: Operando experimental design • Laboratory & synchrotron methods • Interfacial analysis techniques • Spectroscopy & diffraction • Microscopy • Electronic/molecular structure • Surface intermediates • Energy materials.

Symposium Organizers: Andy Wain, National Physical Laboratory, UK;

Heng-Liang Wu, National Taiwan University, Taiwan; Minkyung (Kaye) Kang, University of Sydney, Australia; Vincent Vivier, Laboratoire de Réactivité de Surface, Sorbonne Université, France; Veronica Augustyn, North Carolina State University, USA.



# Symposium 15 Model electrodes to study nanoscale phenomena in electrocatalysis

Sponsored by **Division 3**: Electrochemical Energy Conversion and Storage & **Division 4**: Electrochemical Materials Science & **Division 7**: Physical Electrochemistry

In electrocatalysis, wet chemical methods are often used to produce electrocatalyst nanoparticles, usually in the form of slurries, known as "inks", which include additional materials and compounds such as carbon particles and binders (ionomers). Although considered state-of-the-art and practical for making electrodes, these inks have complex, often undefined, nanoparticle structures, morphologies, chemical compositions, and mass transport properties. This complexity makes it challenging to evaluate the intrinsic electrocatalytic activity and distinguish it from non-kinetic factors, thereby limiting our ability to establish reliable design criteria for electrocatalysts that enhance performance. This symposium aims to discuss and stimulate research on nanofabrication tools for model electrocatalysts and electrodes, with minimal chemical and material complexity, and with defined electrocatalyst loading, size, structure, composition, and mass transport properties. It will also explore how such defined structures can be used to investigate nanoscale phenomena and effects in electrocatalysis. Highly defined (model) electrodes help to better understand the relationships between structure, composition, and activity, as well as mechanisms emerging in supported nanoscale systems such as (electronic) metal support interactions, bifunctional mechanisms, laterally structured double layer properties, electrolyte effects, and more. The symposium aims to discuss the current understanding of these phenomena, how to distinguish between them experimentally, and how to complement this with theoretical work through modelling and computational techniques.

**KEYWORDS**: Model nanostructured electrode • thin film; supported nanoparticle • intrinsic electrochemical activity • structure- and composition-activity relationship • metal support interaction • bifunctional electrocatalyst • double-layer structure • modelling and computational methods.

Symposium Organizers: Marco Altomare, University of Twente, Netherlands;

**Katharina Krischer**, Technical University of Munich, Germany; **Shizhang Qiao**, University of Adelaide, Australia; **Jun Huang**, RWTH Aachen University, Germany.

### Symposium 16 General session

### Sponsored by all Divisions

This symposium will spotlight emerging and important areas of electrochemistry not covered by other dedicated sessions, driving research, energizing interest in ISE, and sparking dialogue on the latest advances with industry partners. Due to high competition for oral slots, Phd students will also have chances for short presentations on electrochemistry topics.\*

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

Symposium Organizers: Cameron Bentley, Monash Univ., Australia; Maria Forsyth, Deakin Univ., Australia; Plamen Atanassov, Univ. of California, USA; Vito Di Noto, Univ. of Padova, Italy.



# 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** – <a href="https://iccsydney.com.au">https://iccsydney.com.au</a>.

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.

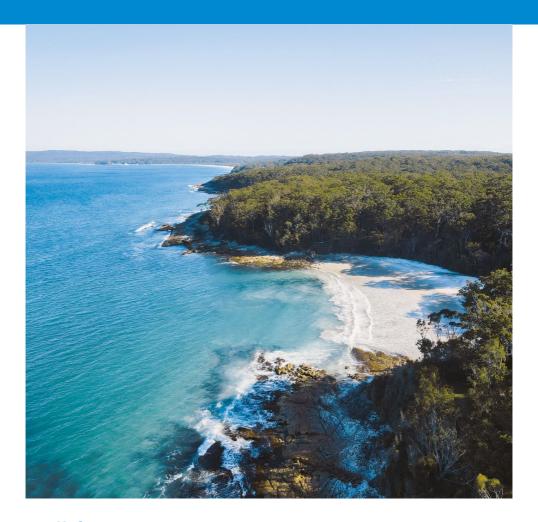
Sydney Airport connects to 43 international destinations and 46 domestic destinations. The airport is just 11 minutes from Central Station by train and 24 minutes by taxi.

# 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.



# 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 (www.ise-online.org/meetings/annual77).

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.

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

of the International Society of Electrochemistry



In-situ and operando monitoring of electrified interfaces

27 - 30 Sept., 2026 - *Gdańsk, Poland* 



www.ise-online.org/meetings/topical43

# **Important Dates**

Abstract submission opens: 19 March 2026 Abstract submission ends: 1 June 2026 Conference begins: 27 September 2026

# Conference Venue

**Gdańsk University of Technology** (Auditoria at the Faculty of Electronics, Telecommunication and Informatics). Address: Narutowicza 11/12, 80-233 Gdańsk, Poland. <a href="https://tinyurl.com/GdanskTech">https://tinyurl.com/GdanskTech</a>

# **Transportation**

Gdańsk (GDN - Gdańsk Lech Wałęsa Airport) is easily accessible by air, with direct flights to many major European cities and connections to key European hubs, including Frankfurt, Munich, Warsaw, Copenhagen, Amsterdam, and London. The airport is located just 14 km from the city center, providing convenient access to the conference venue via train, bus, or taxi. Access to international motorways E28 and E75, as well as rail connections to Warsaw (2.5 hours), Kraków (6 hours), Berlin (7 hours), and many other cities, offers flexible transportation options.

**Public transportation** (buses, trams, regional trains) within the city is well-developed and prioritized, allowing for quick travel between locations.

https://tinyurl.com/GDNTransportation

# **Climate**

Gdańsk's climate is relatively continental, characterised by snowy winters and warm summers. In September, **Gdańsk is mild and pleasant**, with average daytime temperatures around **16 °C**, making it ideal for both conference participation and outdoor explorations. Early autumn often brings **clear skies and calm weather**, aligning with Poland's "**Golden Autumn**," when most of the trees turn gold, red, and brown, creating a truly colorful landscape. Gdańsk experiences moderate annual rainfall, ypically ranging between 540 mm and 570 mm.

# Accommodation

Gdańsk offers multiple options for accommodation, from cheap hostels to 5-star hotels and apartments, some of which are located in historical buildings and palaces. <a href="https://tinyurl.com/GdanskAccomm">https://tinyurl.com/GdanskAccomm</a>

# Organizing Committee

Poland

**Krzysztof Fic (Chair),**Poznan University of Technology,

Emilia Witkowska-Nery (Co-Chair), Institute of Physical Chemistry, PAS, Poland

**Sara Cavaliere,** Institut Charles Gerhardt, Montpellier, France

**Katrin F. Domke,** *University of Duisburg-Essen, Germany* 

# Local Organizing Committee



Jacek Ryl (Co-Chair), Gdańsk University of Technology

**Piotr Jasiński,** *Gdańsk University of Technology* 

Katarzyna Siuzdak, The Szewalski Institute of Fluid - Flow Machinery PASci

# Invitation

You are cordially invited to the 43<sup>rd</sup> Topical Meeting of the International Society of Electrochemistry, which will be held in **Gdańsk**, **Poland**, and hosted by the Gdańsk University of Technology, one of the most respected technical universities in Poland. The charming atmosphere of the vibrant city, blending history evidenced by numerous landmarks, and the university's focus on innovation create an excellent environment for exchanging knowledge and advancing electrochemistry. **Be a part of this event!** 



# Scientific Themes

Electrochemistry is now progressing in many areas—from energy storage and conversion, electrocatalysis, corrosion, sensing, to bioelectrochemistry and drug development. In all these fields, innovative characterization techniques are vital for better understanding the phenomena and making further advances. In this context, the meeting will provide a platform for knowledge sharing and serve as a valuable opportunity to review recent achievements in these areas quickly. It will also facilitate networking among different sections and divisions of the ISE, especially for members from Central and Eastern Europe.

Topics of interest include, but are not limited to:

- In-situ spectroscopies and real-time imaging of electrochemical interfaces
- Time-resolved electrochemical techniques for analyzing transient processes
- Integration of microfluidics and sensors with operando measurements
- Data-driven approaches and modelling of complex interfacial behaviours
- Design and engineering of experimental setups operating in dynamic environments.

The rapid growth of functional electrochemical systems for energy, sensing, catalysis, and environmental technologies increases the need to explore and understand complex, dynamic processes at interfaces, making this task more important than ever.

Therefore, we look forward to contributions that highlight innovative techniques, essential insights, or application-focused research on interfacial electrochemical phenomena.

# 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 (www.ise-online.org/meetings/topical43).

The site will be open for the submission of abstracts on **19 March 2026**. The closing date for the submission of abstracts will be **1 June 2026**.

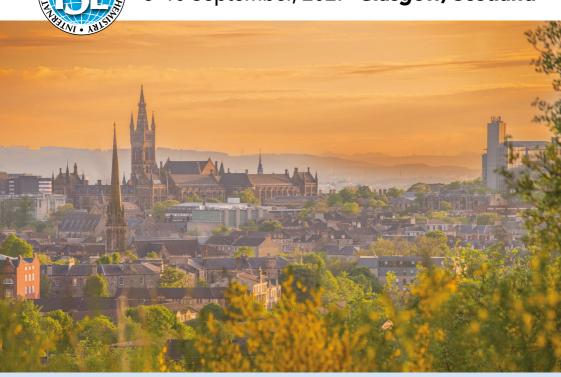
For details please refer to the ISE website.



# 78th Annual Meeting

of the International Society of Electrochemistry

Electrochemistry for a sustainable future 5-10 September, 2027 - Glasgow, Scotland



www.ise-online.org/meetings/annual78

# **Important Dates**

Abstract submission opens: 1 December 2026 Abstract submission ends: 31 March 2027 Conference begins: 5 September 2027

# Conference Venue

The meeting will be held at the **Scottish Event Campus (SEC)**, a major conference centre in **Finnieston**, **Glasgow**, **Scotland** – **www.sec.co.uk**. Located at the Clyde's riverside, it is just a short walk away from the 100+ bars and restaurants of Finnieston and within walking distance of Glasgow's city centre and west end. There is also an on-site train station (3-minute journey to the city centre).

# **Transportation**

Flights: Delegates can fly directly to one of three international airports surrounding Glasgow, with Glasgow Airport just 15 minutes from the city center and Edinburgh less than an hour away. Currently, there are direct flights from over 165 scheduled destinations to Glasgow and Edinburgh, including London, New York, Paris, Dubai, Toronto, Amsterdam, Barcelona, Berlin, Boston, Brussels, Chicago, Cologne, Doha, Dublin, Frankfurt, Istanbul, Marseille, Madrid, Milan, Munich, Naples, Orlando, Philadelphia, Prague, Rome, Stockholm, Vienna, Warsaw, Washington, and Zurich. Additionally, there are multiple connecting flights (approximately one hour duration) between Glasgow and London Heathrow, Paris, Frankfurt, and Amsterdam daily, providing connections to most major cities worldwide.

**Rail:** Glasgow is well connected by train across the UK and Europe. We have over 20 trains a day to London. This connection to London also allows delegates to travel by the Eurostar through London St Pancras to Calais-Fréthun, Lille, Amsterdam, Rotterdam, Brussels, Paris, Bourg-Saint-Maurice, Lyon, Avignon, and Marseille.

# Climate

Glasgow, on Scotland's west coast, benefits from the Gulf Stream. Average daily highs in September are **16 °C** (62 °F) and lows are 10-11 °C. It receives about 115 hours of sunshine in September, with sunrise around 06:30 and sunset around 20:00.

# Accommodation

Glasgow provides a range of accommodations near the SEC, with about 11,000 hotel rooms within 2 miles of the city center. This includes over 1,400 on-site rooms at the SEC across 8 hotels, around 9,500 within a 15-minute travel time, and over 2,000 student rooms, many within walking distance.



Angel Cuesta (Co-Chair) (Aberdeen)
Robert Dryfe (Co-Chair) (Manchester)
Mark Symes (Glasgow)
Plamen Atanasov (Irvine)
Andrea Russell (Southampton)
Francesca Soavi (Bologna)

# Local Organizing Committee

Mark Symes (Glasgow)
Sudipta Roy (Glasgow)
leuan Seymour (Aberdeen)
Sunita Dey (Aberdeen)
Edward Brightman (Glasgow)
Stephen Lyth (Glasgow)
Zeliha Ertekin (Glasgow)

# Invitation

Glasgow is Scotland's cultural powerhouse and one of the UK's most vibrant cities, bursting with activity and a down-to-earth personality devoted to good times. It boasts an extensive civic arts collection, featuring masterpieces by Dali, Van Gogh, Degas, Renoir, Whistler, and Monet, displayed in many free museums and galleries, including the iconic Kelvingrove Art Gallery and Museum and the award-winning Riverside Museum. The meeting will be at the Scottish Event Campus (SEC), located riverside in Finnieston, halfway between the city centre and the west end, where tourist attractions, hotels, restaurants, and shops are found. The SEC offers flexible meeting and exhibition space, just 15 minutes from Glasgow Airport and close to an on-site train station with a 3-minute journey to the city centre.

Glasgow boasts rich architectural heritage. Its affluent past has left exquisite Victorian buildings, notably the City Chambers, majestically overlooking George Square—the city's civic heart. Glasgow Cathedral exemplifies Scotland's medieval architecture. Next to the Cathedral is the mesmerizing Necropolis, a cemetery adorned with incredible sculptures and stories. Additionally, Glasgow is the gateway to Scotland, with breathtaking scenery nearby perfect for exploring the West Coast islands, Loch Lomond, highland whisky distilleries, majestic castles, and numerous golf courses.

Glasgow, Scotland, and the UK have a rich scientific tradition, being home to Faraday, James Watt, Maxwell, Kelvin, and Butler. Scotland boasts a vibrant tech ecosystem in Life Sciences, Renewable Energy, Data Science, Artificial Intelligence, and Advanced Manufacturing, featuring a strong research base, a growing startup scene, and a supportive business climate. This fosters active engagement between the local scientific community and ISE delegates. We look forward to welcoming you to Glasgow in 2027!

# Scientific Themes

- Electroanalysis, Sensors & Biosensors
- Biological and Medicinal Electrochemistry
- Batteries
- Fuel Cells
- Electrochemistry for CO<sub>2</sub> Conversion, Hydrogen Production and Ammonia Synthesis
- Supercapacitors
- Electrochemistry of Nano-materials
- Electrocatalysis
- Electrodeposition and Electroplating
- Corrosion and Passivity

- Electrochemical Engineering and Technology
- Environmental Electrochemistry
- Molecular and Supramolecular Electrochemistry
- Photoelectrochemistry
- Theoretical and Computational Electrochemistry
- Interfacial Electrochemistry
- Spectroelectrochemistry
- Scanning Probe Microscopy Methods in Electrochemistry
- Electrochemical Instrumentation
- Electrochemistry at liquid-liquid intefaces

# 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 (www.ise-online.org/meetings/annual78).

The site will be open for the submission of abstracts on **1st December 2026**. The closing date for the submission of abstracts will be **31 March 2027**.

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:

- Flectrochimica 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**

### 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 ISF 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

To become an ISE member, please fill in the Membership Application Form at 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

The yearly membership fee is 65 Euros (25 Euros for ages below 30).

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