



Connecting electrochemists since 1949

The International Society of Electrochemistry **2027**

ise-online.org

info@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 about 3000 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 standard 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 2027: Glasgow, Scotland



Annual Meeting 2028: San Diego, USA

ISE Topical Meetings

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.

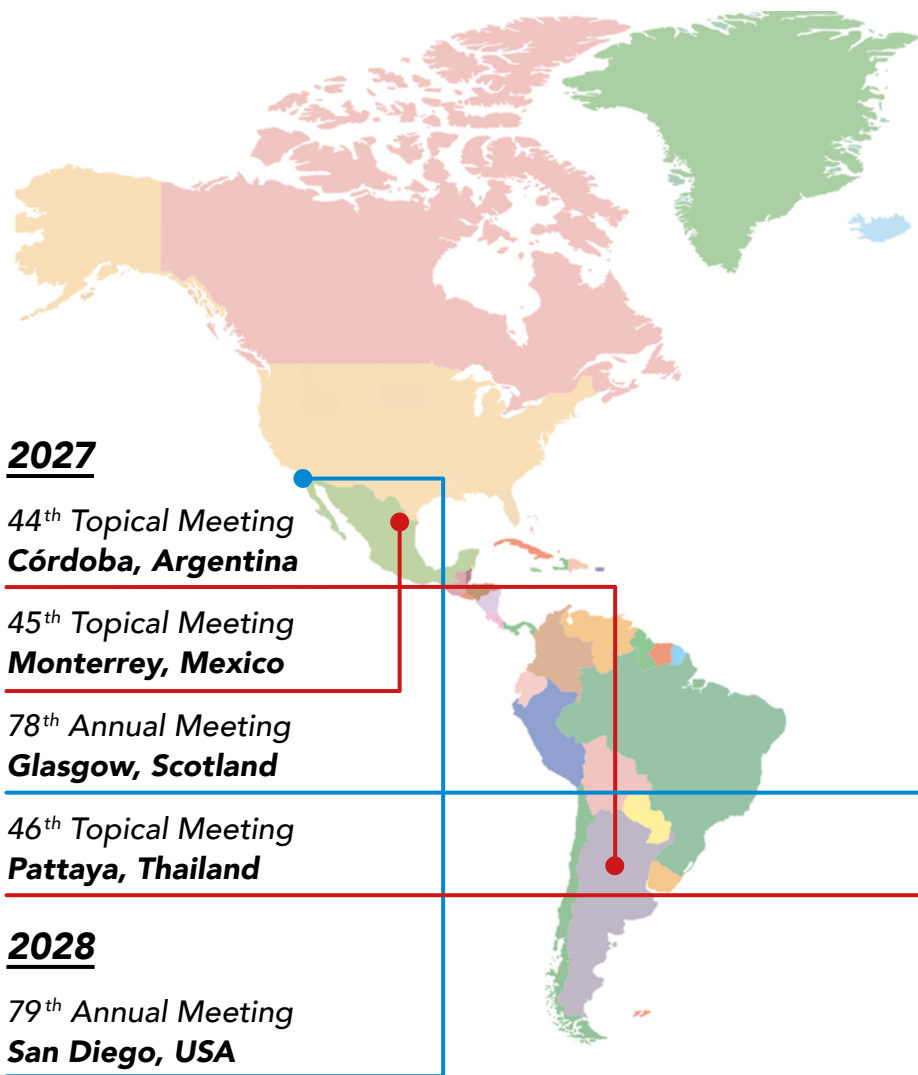


Topical Meeting 2027: Córdoba, Argentina

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.

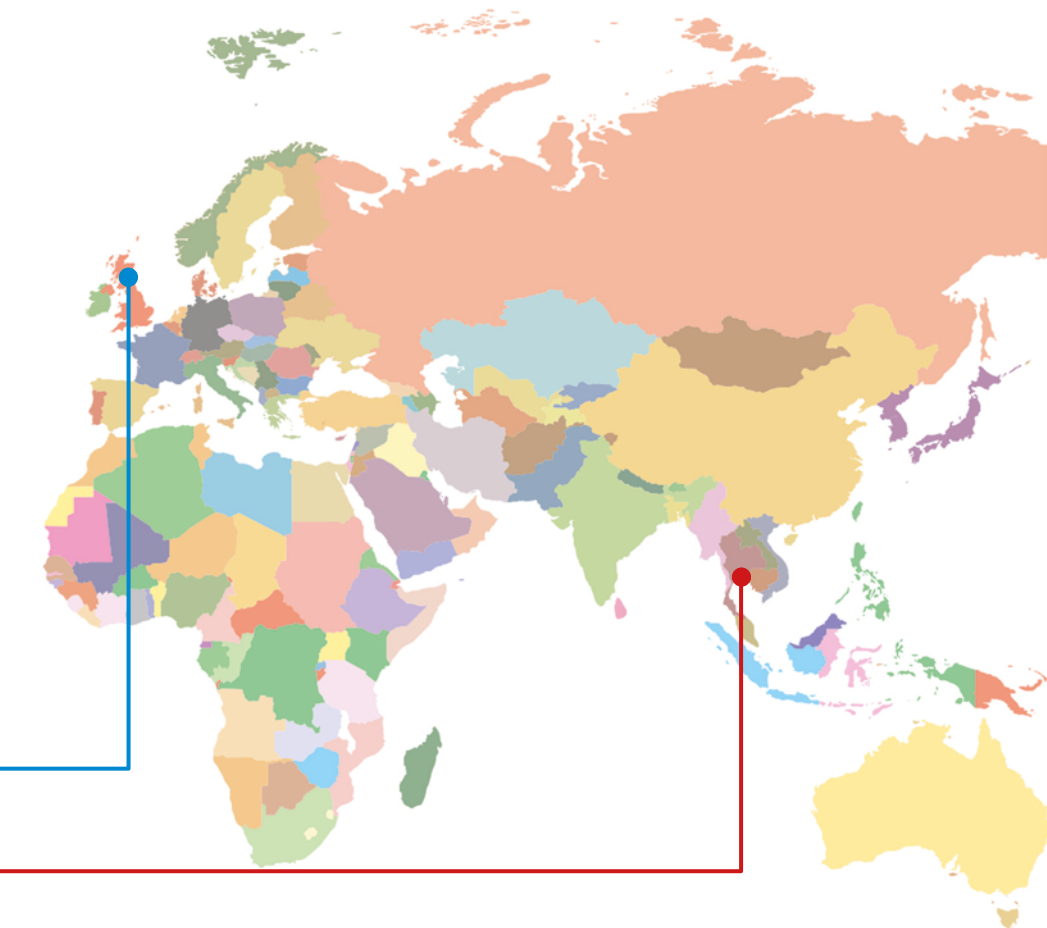




Forthcoming Annual and Topical Meetings

Annual Meetings

- 78th Annual Meeting - **Glasgow, UK** : 5 - 10 September, 2027
- 79th Annual Meeting - **San Diego, USA** : 17 - 22 September, 2028



Topical Meetings

- 44th Topical Meeting - **Córdoba, Argentina** : 9 -12 May, 2027
- 45th Topical Meeting - **Monterrey, Mexico** : 11 -14 July, 2027
- 46th Topical Meeting - **Pattaya, Thailand** : 22 -25 November, 2027

44th Topical Meeting

of the International Society of Electrochemistry



Electrochemistry and Functional
Materials: From Fundamentals
to Applications

9 - 12 May, 2027 - **Córdoba, Argentina**



www.ise-online.org/meetings/topical44

Important Dates

Abstract submission opens: **6 October, 2026** ends: **11 January, 2027**

Registration opens: **15 December, 2026** ends: **18 March, 2027**

Conference Venue

The meeting will be held at the: **Centro Cultural UNC**
Obispo Trejo 314, Córdoba, Argentina.

<https://www.unc.edu.ar/extensión/centro-cultural-unc>

Transportation

Located in central Argentina, **Córdoba** is easily accessible for both regional and international participants. The city is served by the **Ingeniero Ambrosio Taravella International Airport**, with direct connections to major hubs in South America and convenient links to international destinations via Buenos Aires and other key cities. Córdoba's **compact layout** and **efficient transportation system** make it easy to move between the airport, hotels, and conference venue. **9 airlines** operating to and from Córdoba • Direct connections to **11 cities** abroad • **17 daily flights** to Buenos Aires.

Climate

Mild temperatures, stable weather, and comfortable humidity levels. **Daytime** temperatures typically range between **18** and **26 °C**, while **evenings** are cooler, often between **10** and **15 °C**. Rainfall is moderate and generally occurs in short, infrequent episodes.

Accommodation

Córdoba offers an extensive range of accommodation, from **budget options to 5-star hotels**, with approximately **8,800-9,000 hotel beds**. Apart-hotels, hostels, and short-term rentals further expand the city's capacity, ensuring comfortable and flexible accommodation for all participants.

Restaurants

Córdoba offers a vibrant and diverse culinary scene, from **traditional Argentine parrillas and cafés** to **contemporary restaurants** and international cuisine. Popular dining districts such as **Güemes, Nueva Córdoba**, and the historic centre provide excellent opportunities to enjoy local flavours, relaxed networking, and memorable evenings after the scientific sessions.

Organizing Committee

Guillermina Luque (Co Chair),
Universidad Nacional de Córdoba, Argentina

Martín Zoloff Michoff (Co Chair),
Universidad Nacional de Córdoba, Argentina

Silvia Cere,
Universidad Nacional de Mar del Plata, Argentina

Ezequiel Leiva,
Universidad Nacional de Córdoba, Argentina

Gabriel Negrão Meloni,
University of São Paulo, Brazil, D1

Maria Cuartero,
KTH, Royal Institute of Technology, Sweden, D1

Roberto Torresi, *Instituto de Química –
Universidade de São Paulo, Brazil, D3*

Local Organizing Committee

Victoria Bracamonte,
Universidad Nacional de Córdoba, Argentina

Andrea Calderón,
Universidad Nacional de Córdoba, Argentina

Fernando Cometto,
Universidad Nacional de Córdoba, Argentina

Esteban Franceschini,
INFIQC-CONICET, Argentina

Arnaldo Visintin,
Universidad Nacional de La Plata, Argentina

Josefina Ballarre,
Universidad Nacional de Mar del Plata, Argentina

Victoria Flexer,
Universidad Nacional de Jujuy-Argentina

Paola M. Quaino,
Universidad Nacional del Litoral, Santa Fe



Invitation

You are cordially invited to the 44th Topical Meeting of the International Society of Electrochemistry which will take place in Córdoba, Argentina, from 9 to 12 May, 2027. Córdoba offers an inspiring setting for scientific exchange, combining world-class research with one of Latin America's richest academic traditions. Home to the historic Universidad Nacional de Córdoba, one of the oldest universities in the Americas, and multiple CONICET institutes, the city provides an exceptional environment for learning, collaboration, and innovation. Participants will engage in a stimulating scientific programme while discovering the UNESCO World Heritage Manzana Jesuítica, the iconic Catedral de Córdoba, and the vibrant historic centre. We warmly invite researchers, students, and professionals to present their latest work and contribute to four days of education, discussion, and international collaboration.



Scientific Scope of the Conference

Electrochemistry and functional materials are central to the development of advanced technologies addressing current challenges in energy, sustainability, and industrial innovation. Advances in electrochemical materials, interfaces, and processes are enabling breakthroughs across diverse fields, including energy conversion and storage, corrosion and surface engineering, electrocatalysis, environmental technologies, sensing, and bioelectrochemistry.

This Topical Meeting will bring together researchers from across the electrochemical sciences to discuss recent progress in functional materials and interfaces, electrochemical energy conversion and storage, and functional electrochemistry for sustainable processes. The meeting will foster interdisciplinary exchange between fundamental and applied research, spanning charge transfer and interfacial phenomena, advanced materials and devices, analytical methodologies, and emerging electrochemical technologies.



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/topical44).

The site will be open for the submission of abstracts on **6 October, 2026**.

The closing date for the submission of abstracts will be **11 January, 2027**.

For details please refer to the ISE website.

45th Topical Meeting

of the International Society of Electrochemistry



Shaping a Sustainable Future
through Innovative
Electrochemical Engineering

11 -14 July, 2027 - **Monterrey, Mexico**



www.ise-online.org/meetings/topical45

Important Dates

Abstract submission opens: **14 December, 2026** ends: **16 March, 2027**

Registration opens: **17 February, 2027** ends: **19 May, 2027**

Conference Venue

The **Centro de Congresos** (Congress Centre) at **Tecnológico de Monterrey, Campus Monterrey**, is a state-of-the-art convention center. It serves as a central hub for high-profile academic, corporate, entrepreneurial (eg. incMTY), and medical conferences. **Address:** *Av. Eugenio Garza Sada 2501 Sur, Colonia Tecnológico, C.P. 64700, Monterrey, Nuevo León, Mexico.*

Transportation

General Mariano Escobedo International Airport, also known as **Monterrey International Airport (MTY)**, located 30-35 km from Tecnológico de Monterrey.

A **taxi or Uber** is usually the best option for getting to the venue due to its convenience and safety. 35 - 60 minutes depending on traffic and typically around **MX\$300-500** (approx. **US\$18-30**). Public transport is economical but can be complicated when traveling with luggage.

Climate

During the day, the typical temperature is **32-35 °C (90-95 °F)**, occasionally reaching **~39 °C (103 °F)**, and at night it decreases to around **21-23 °C (70-73 °F)**. There might be showers or brief storms as the North American monsoon begins. Rainfall in July is **15 - 25%, around 50 - 65 mm**, and **60-70% humidity**.

Accommodation

The **Fiesta Inn Monterrey Tecnológico** and the **One Monterrey Tecnológico** are located **within 500 meters** on Paseo Tec (Avenida Eugenio Garza Sada), making them ideal for walking to the university campus. Executive and modern style: The **City Express Plus Monterrey Nuevo Sur** is found just **1.4 km away**, surrounded by a shopping plaza with convenient restaurants and shops.

Guide Budget:

Luxury: JW Marriott, Safi Metropolitan; **Boutique:** Hotel Habita / Quinta Real;

Historic Charm: Gran Hotel Ancira; **Mid-Range:** Camino Real, Radisson, Hilton;

Budget: Guesthouses in Barrio Antiguo



Local Organizing Committee

Marcelo Fernando Videa Vargas,
Tecnológico de Monterrey, Mexico

Jorge Luis Cholula Díaz,
Tecnológico de Monterrey, Mexico

Jonathan Valentin, *Universidad
Autónoma de Nuevo León, Mexico*

Organizing Committee

Carlos Ponce de León (Chair),
University of Southampton, UK.

Margarita Miranda Hernandez, (Co Chair),
Universidad Nacional Autónoma de Mexico, Mexico

José Luis Nava, *Departamento de Química,
Universidad de Guanajuato, Mexico*

Erika Bustos Bustos, *Centro de Investigación y
Desarrollo Tecnológico en Electroquímica, Mexico*

María Carmen Pérez, *Corrosion Engineering
and Materials Group, Universidade de Vigo, Spain*

L. Fernando Arenas, *Electrochemical Engineering
Lab. & School of Chemistry, University of Southampton, UK*

Tzayam Perez, *Mexican Society of
Electrochemistry (SMEQ), Mexico*

Francisco Javier Rodríguez Valadez,
*Centro de Investigación y Desarrollo Tecnológico en
Electroquímica (CIDETEQ), Mexico*

Invitation

You are cordially invited to the 45th Topical Meeting of the International Society of Electrochemistry, which will be held in the city of Monterrey, Mexico.

Monterrey was chosen to host this meeting for its **technological development, strong industrial base, and culture of innovation**. It is widely regarded as Mexico's industrial capital and one of the country's leading business centers. Located in northern Mexico, Monterrey is home to the headquarters of several major Latin American corporations and serves as an important industrial and commercial hub.

Its excellent air and land connectivity, along with a wide range of accommodations, make it an attractive destination for industry and business. The city's strong industrial activity has also spurred the **growth of research centers and universities**, creating opportunities for collaboration and innovation across a wide range of strategic sectors.



45th Topical Meeting

of the International
Society of Electrochemistry

Scientific Themes

As industries shift toward electrification, sustainability, and carbon neutrality, electrochemical processes should develop scalable, modular technologies for cleaner production, closed-loop material cycles, and resilient energy infrastructure. This meeting offers an opportunity to connect with engineers, researchers, and developers in electrochemical science and process engineering, exploring innovations across energy, chemicals, materials recovery, and water treatment. Topics include process design, scale-up, and integration with renewable power, focusing on engineering challenges and solutions affecting real-world impact. The meeting will be organized into three symposia.

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

- Engineering the Energy Transition
- Sustainable Chemical Production and Process Electrification
- Electrochemical Process Systems and Resource Recovery



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/topical45).

The site will be open for the submission of abstracts on **14 December, 2026**.
The closing date for the submission of abstracts will be **16 March, 2027**.

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** ends: **31 March, 2027**

Registration opens: **9 March, 2027** ends: **17 June, 2027**

Organizing Committee

Angel Cuesta (Co-Chair), Aberdeen, UK
Robert Dryfe (Co-Chair), Manchester, UK
Mark Symes, Glasgow, UK
Plamen Atanasov, Irvine, CA. USA
Andrea Russell, Southampton, UK
Monica Santamaria, Palermo, Italy
Francesca Soavi, Bologna, Italy
Wataru Sugimoto, Ueda, Japan
Iryna Zenyuk, Irvine, CA. USA

Local Organizing Committee



Mark Symes, Glasgow, UK
Sudipta Roy, Glasgow, UK
Ieuan Seymour, Aberdeen, UK
Sunita Dey, Aberdeen, UK
Edward Brightman, Glasgow, UK
Stephen Lyth, Glasgow, UK
Zeliha Ertekin, Glasgow, UK

Invitation

You are cordially invited to the **78th Annual Meeting** of the International Society of Electrochemistry in **Glasgow, Scotland**, from September 5th until September 10th, 2027.

The origins of Glasgow are believed to date back to the foundation of a church by the city's patron saint, St Mungo, in the **6th century AD**. Glasgow was transformed from a small medieval town into a large city centered on engineering and shipbuilding along the River Clyde during the Industrial Revolution of the 18th and 19th Centuries. This transformation was accompanied, and in many ways driven, by advances in science and technology made within the city. For example: **James Watt** and **Lord Kelvin** (formerly William Thomson) worked in Glasgow during this period – not many other cities can claim to have been the progenitors of two SI units. The city is still well known for its scientific and engineering prowess, embodied through research at the Universities of Glasgow and Strathclyde.

The venue for our conference is the **Scottish Event Campus**, a dedicated exhibition space beside the River Clyde, near the West end of the city centre. The **Campus is 12 km by road from the city's airport (GLA)**, and is served by an adjacent railway station (Exhibition Centre) with frequent trains to the main city railway station (Glasgow Central). Glasgow has its own fascinating cultural heritage, reflecting the city's unique history. It is also a "great place to get out of", with the southern fringes of the Scottish Highlands (for example, scenic destinations such as Loch Lomond and adjacent hills such as Ben Lomond only 50 km from the city). **We look forward to welcoming you to Glasgow in 2027!**



Plenary Lecturers



Caroline Ajo-Franklin, *Rice University, Houston, TX, USA.*

Caroline Ajo-Franklin is the Ralph and Dorothy Looney Professor of BioSciences at Rice University and the founding director of the Rice Institute for Synthetic Biology. Before joining Rice, she was a Staff Scientist in the Molecular Foundry, a Department of Energy User Facility for Nanoscience at Lawrence Berkeley National Lab, for 12 years.

Prof Ajo-Franklin's research program has pioneered the use of synthetic biology for real-time environmental bioelectronic sensors and for living materials. She is internationally recognised for her work on engineered living materials and bioelectronic sensing/actuation.

Prof Ajo-Franklin's research exploits cellular-electrical connections to transmit information via devices that combine the skills of the living and inorganic worlds. A parallel aspect of her lab focusses on combining naturally occurring microbial systems and designer proteins to autonomously assemble functional living materials.



Julia Kunze-Liebhäuser, *University of Innsbruck, Austria*

Julia Kunze-Liebhäuser is a Full Professor of Materials and Electrochemistry and Head of the Institute of Physical Chemistry at the University of Innsbruck. Her research investigates the solid/liquid interface under reaction conditions, with a focus that has evolved from corrosion science to energy conversion and storage, including electrocatalysis and (ion) battery research.

Prof. Kunze-Liebhäuser is particularly recognized for applying *operando* analytical techniques — including electrochemical scanning tunneling microscopy (EC-STM), electrochemical IR spectroscopy (EC-IRRAS), *in situ* electrochemical product analysis (GC and DEMS), and electrochemical near-ambient-pressure

X-ray photoelectron spectroscopy (EC-XPS) — to relate electrocatalytic activity, selectivity, and stability to electrode morphology and structure, the nature of reaction intermediates and products, and the chemistry of the interface. In 2004, she received the Hans-Jürgen Engell Prize of the ISE.



Zhong-Qun Tian, *Xiamen University, China*

Prof. Zhong-Qun (ZQ) Tian is a Tan Kah Kee Professor of Chemistry at Xiamen University and an internationally prominent figure in electrochemical spectroscopy, surface-enhanced Raman spectroscopy (SERS), and interfacial electrochemistry. He received his BSc from Xiamen University (1982) and his PhD from the University of Southampton (1987), where he worked with Martin Fleischmann. His current research spans spectro-electrochemistry, interfacial and energy electrochemistry, SERS/plasmonics, and more. Prof. Tian is a Member of the Chinese Academy of Sciences, Fellow of the World Academy of Sciences and of the International

Plenary Lecturers

Society of Electrochemistry, of which he served as President (2019–2020).

The Electrochimica Acta 2026 Gold Medal is conferred upon Prof. Zhong-Qun Tian in recognition of his thorough and transformative contributions to electrochemistry. His pioneering work in electrochemical Raman spectroscopy, notably by extending it to Pt and Fe-group metals and by developing the SHINERS method, has enabled the study of materials previously inaccessible to conventional Raman techniques, providing unprecedented insights into the structure and dynamics of interfaces and interphases.



Patrice Simon, *University Paul Sabatier Toulouse, France.*

Patrice Simon is Distinguished Professor of Material Science at the Université of Toulouse III - Paul Sabatier and a member of the French Academy of Sciences (2019). He is a former director of the Alistore European Research Institute (www.alistore.eu) dedicated to Li-ion battery research and now Director of the French network on Electrochemical Energy Storage (RS2E, www.energie-rs2e.com) and Director of the French national research program on Batteries (PEPR Batteries).

His research activities focus on the fundamental understanding of electrochemical processes at the material/electrolyte interfaces in electrodes for electrochemical energy storage devices (batteries and electrochemical capacitors). Prof Simon has received several awards for his scientific contribution, including Grants from the European Research Council (2012, 2020), the Brian Conway Prize for Physical Electrochemistry from the ISE (2018), the Silver Medal from the CNRS (2015), and nomination as a Clarivate Citations Laureate (2018). He is a Fellow of the ISE (2017) and was a recipient of the Royal Society of Chemistry Horizon Prize (2021). Simon has been an ISI "Highly Cited Researcher" since 2016 and is a Member of the Academia Europaea.



Atsuo Yamada, *The University of Tokyo, Japan.*

Atsuo Yamada has been a Professor at the University of Tokyo since 2009, after working 10 years (1990-2002) as a Research Scientist at Sony Research Center, 3 years as laboratory head of Sony Frontier Science Laboratories, and 6 years as an Associate Professor at Tokyo Institute of Technology. He was a visiting scholar for one year in John B. Goodenough's lab at the University of Texas at Austin, an Invited Professor at ICBM/CNRS (University of Bordeaux), and, since 2023, a Distinguished Professor at the SKKU Nobel-Class Research Cooperation Center.

Prof. Yamada's research focuses on battery materials and is characterised by sophisticated approaches that explore structure-property relationships. It includes very early-stage exploration/optimization of LFP and NFS, and more recently, identification and understanding of several functional electrolytes, including the proposal of Liquid Madelung theory to replace classical Debye-Hückel theory. He has received the Spriggs Award and the Purdy Award from ACerS, the Scientific Achievement Award from ECS Japan, the IBA Research Award, the Battery Division Research Award from the Electrochemical Society, and the Science & Technology Award from MEXT.

2026 ISE Prize Winners and Award Lecturers

Electrochimica Acta Gold Medal

Zhong-Qun Tian, *Xiamen University, China*

Tajima Prize

Kai Exner, *University of Duisburg-Essen, Germany*

ISE Prize for Electrochemical Energy Conversion & Storage in Honour of Bruno Scrosati

Michel Armand, *CIC EnergiGUNE, Spain*

Zhaowu Tian Prize for Energy Electrochemistry

Iryna Zenyuk, *University of California Irvine, USA*

Oronzio and Niccolò De Nora Foundation Young Author Prize of ISE

Filip Todorovski, *University of Ljubljana, Slovenia*

Brian Conway Prize for Physical Electrochemistry

Aicheng Chen, *University of Guelph, Canada*

ISE Prize for Electrochemical Material Science – General

Johanna Schröder, *Karlsruhe Institute of Technology (KIT), Germany*

ISE Prize for Electrochemical Material Science – Corrosion

Bahram Vaghefiazari, *Helmholtz-Zentrum Hereon, Germany*

Early Career Prize of Division 1

Sladana Đurđić, *University of Belgrade, Serbia*

Jaroslav Heyrovsky Prize for Molecular Electrochemistry

Shelley Minteer, *Missouri University of Science and Technology, USA*

ISE-Elsevier Prize for Experimental Electrochemistry

Peter Strasser, *Technische Universität Berlin, Germany*

ISE-Elsevier Prize for Applied Electrochemistry

Weiran Zhang, *Nanyang Technological University, Singapore*

ISE-Elsevier Prize for Green Electrochemistry

Xianbio Fu, *National University of Singapore (NUS), Singapore*

Katsumi Nikki Bioelectrochemistry Prize of ISE Division 2

Kenji Kano, *Kyoto University, Japan*

Early Career Prize in Bioelectrochemistry

Danbee Kim, *Johns Hopkins University, MD, USA*

Summary of Symposia

Symposium 1 Ion transport in electroanalysis: From potentiometric sensors to emerging ionotronic devices

*Sponsored by **Division 1: Analytical Electrochemistry***

This symposium will focus on the fundamental and applied aspects of ion transport and ionic conductivity within electroanalysis, with an emphasis on interfacial electrochemical phenomena in liquids, polymers, gels, and solid-state ionic materials. These processes are central to many emerging technologies, including ion-based sensing, energy storage and conversion, neuromorphic and biomimetic devices, and hybrid ionic/electronic architectures. The symposium will place particular emphasis on the emerging field of ionotronic devices, exploring their functionality beyond conventional electronic approaches and focusing on how these devices can interrogate chemical and biological systems with highly sensitive, low-power, and often calibration-free sensing strategies. The applications of ionic electrochemistry and ionotronics range from nano-electrochemistry to microfluidics and wearable devices, giving the symposium a wide scope of audience. This symposium aims to bring together researchers working at the interface of fundamental electrochemistry and applied electroanalysis to discuss the future of ionic electrochemistry in analytical electrochemistry applications and how ionotronics can reshape conventional electrochemical sensing mechanisms and device architectures. Contributions addressing the current state of the art in ionotronics, demonstrated applications, materials and device design strategies, as well as critical challenges and future research directions, are strongly encouraged.

KEYWORDS: Ionotronics • Electrochemical sensing • Ion transport • Potentiometric sensors • bioelectronics • Ionic Conductivity • Neuromorphic Sensing • Nanofluidics

Symposium Organizers: *Maria Cuartero, KTH Royal Institute of Technology, Sweden; Gabriel Meloni, University of São Paulo, Brazil; Ian Mcpherson, Loughborough University, UK; Steven Linfield, Academy of Sciences, Poland.*



Symposium 2 Biosensing for Complex Environments and sustainable detection systems

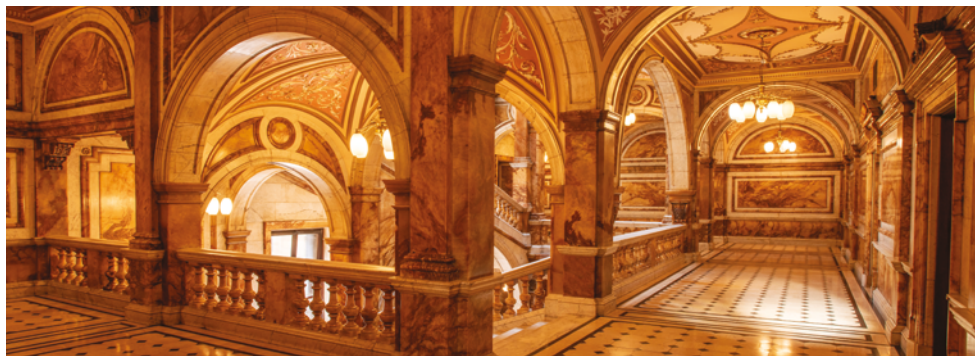
Sponsored by **Division 1: Analytical Electrochemistry** & **Division 2: Bioelectrochemistry**

This symposium aims to explore the latest developments in biosensing, particularly in complex sample matrices. The program emphasizes methods that enhance performance, affordability, and (re) usability across healthcare, diagnostics, and industrial and environmental applications. Biosensors operating in complex environments often encounter issues such as biofouling, nonspecific adsorption, contamination-related interferences, stability limitations, and sample variability. Together, these issues compromise the sensor's sensitivity, specificity, and real-time performance.

Topics include, but are not limited to: unconventional biorecognition mechanisms that go beyond antibodies and enzymes, including advances in the use of aptamers, nanobodies, peptides, and molecularly imprinted polymers, among other biological and bioinspired elements, with a focus on design, selection, and evaluation. These strategies can be further improved through nanomaterial-driven signal enhancement. Sessions will explore the use of cost-effective and sustainable materials, such as paper-based cellulose-derived and other composites, to develop low-cost, printable, and disposable biosensing platforms. Additional discussions will focus on real-time, multiplexed biosensing for the simultaneous detection of analytes, and on the design of ingestible and minimally invasive sensors for physiological monitoring, including emerging ingestible formats. The integration of artificial intelligence and machine learning in bioelectroanalysis will be discussed in relation to data processing, feature extraction, and decision support. Biohybrid interfaces combine biological components with synthetic materials to improve biocompatibility and enable stable, long-term signal recordings for sophisticated biosensing applications. This session provides a platform for sharing methods, datasets, and practical insights to support the translation of biosensor technologies into reliable, context-aware measurements of complex environments.

KEYWORDS: Unconventional biorecognition • Nanomaterial-driven signal enhancement • Sustainable biosensing materials • Real-time multiplexed biosensing • AI and machine learning in bioelectroanalysis • Biohybrid interfaces • Biosensing in complex environments • Ingestible, non-invasive and minimally invasive biosensors

Symposium Organizers: *Emilia Witkowska Nery*, Academy of Sciences, Poland; *Robert Johnson*, University College Dublin, Ireland; *Felipe Conzuelo*, Nova University Lisbon, Portugal; *Hye Jin Lee*, Kyungpook National University, South Korea.



Symposium 3 Bioelectrochemistry: From innovations to applications

Sponsored by Division 2: Bioelectrochemistry

This symposium focuses on new developments in bioelectrochemistry, with an emphasis on materials, material combinations, and methods for studying and describing bioelectrochemical interfaces. **Topics include, but are not limited to:** Bio-nano interactions; combinations of biomolecules with conducting and semiconducting materials; in situ and operando characterization methods; modeling of interfaces for bioelectrochemistry; and the application of AI in bioelectrochemistry. Since the symposium is the main event of Division 2, it provides a forum for discussion of a wide range of other bioelectrochemistry areas. This ranges from fundamental studies of biochemical and electrochemical reaction mechanisms to applications of bioelectrochemistry in healthcare and sustainability technologies. This will include studies of biomolecules as well as biomembranes, whole cells, biofilms, tissues, or in vivo systems. The symposium addresses synergistic studies of bioelectrochemical systems that combine electrochemistry with additional tools and phenomena, such as plasmonics, photoelectrochemistry, spectroscopies, microscopies, as well as simulations and modeling. Fundamental bioelectrochemistry research can lead to many applications important in healthcare and sustainability. Examples include strategies for improved diagnostics, chemical monitoring, environmental and waste remediation, energy or value-added product generation, and the development of sustainable materials.

KEYWORDS: Bionanotechnology • Biomolecular electron transfer • In situ and hybrid methods • Bioelectrocatalysis • Photobioelectrochemistry • In-vivo bioelectrochemistry • Microbial electrochemistry and biocorrosion

Symposium Organizers: *Fred Lisdat* (lead organizer), *Technical University Wildau, Germany*; *Shigeru Amemiya*, *University of Pittsburgh, USA*; *Dónal Leech*, *University of Galway, Ireland*; *Eileen Yu*, *University of Southampton, UK*

Symposium 4 Expanding horizons in Alkali-Based Batteries: Li, Na, and K-batteries

Sponsored by Division 3: Electrochemical Energy Conversion and Storage.

This symposium will cover advances in electrode materials, electrolytes and processing strategies for Li, Na and K-based batteries. **Topics include, but are not limited to:** The synthesis and characterization of novel electrode and electrolyte materials for alkali-based batteries, including cathodes, anodes, electrolytes, binders, conductive additives, and current collectors. Topics of interest include liquid and solid state electrolytes, metal batteries and “anode-free” concepts; novel electrode architectures and processing methods (including dry-coating approaches) and the integration of bidimensional (2D) materials as active materials, additives or scaffolds; Advanced simulation/modelling approaches, together with in situ and operando characterization for probing interfaces and interphases, are also within the scope. The symposium will further address sustainability-related challenges through contributions on recycling strategies, material recovery and regeneration processes, life cycle assessment, and “design-for-recycling” concepts.

KEYWORDS: Novel Liquid Electrolytes • New cathodes/anodes for monovalent batteries • Solid-state batteries • 2D materials • Electrode processing • Sustainability/Life Cycle Assessment • Recycling strategies • Simulation/modelling

Symposium Organizers: *Riccardo Ruffo* (Coordinator), *University of Milano Bicocca, Italy*; *Wei Ren Liu*, *Chung Yuan Christian University, Taiwan*; *Ivana Hasa*, *University of Warwick (WMG)*; *Jacob Olchowka*, *Institute of Condensed Matter Chemistry in Bordeaux (ICMCB-CNRS)*.

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Symposium 5 High-power storage systems: From materials design to device performance

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

This symposium will highlight the latest advances contributing towards fast and high-power energy storage devices, with particular emphasis on how electrode materials structure, electrode architectures, and electrolyte formulations govern power performance. The session aims to bridge fundamental and applied perspectives by covering topics that range from interfacial charge storage mechanisms at the electrode/electrolyte interface to high-power-capable intercalation reactions within the bulk electrode. It covers the design, fabrication, and evaluation of innovative high-power devices.

Topics include, but not limited to: Supercapacitors: Carbon-based and pseudocapacitive materials; High-power batteries: Pseudocapacitive intercalation and solvent co-intercalation; Hybrid systems: asymmetric devices and metal-ion capacitors; Micro-supercapacitors and miniaturized high-power storage; Electrolytes: aqueous, organic, ionic liquid, polymer and solid-state systems; Electrode/electrolyte interfaces: in situ and operando characterization; Emerging device concepts and advanced cell designs; Theory, modelling, and simulation of fast electrochemical processes. Papers related specifically to recycling or re-use should be directed to the "Materials and devices for energy storage or conversion: recycling or re-use" symposium.

KEYWORDS: Supercapacitors • Metal-ion capacitors and hybrid devices • Pseudocapacitance • Advanced electrolytes • Electrochemical interfaces • In situ and operando characterization • Modeling and simulation.

Symposium Organizers: *Simon Fleischmann* (Coordinator), Helmholtz Institute Ulm (HIU), Ulm, Germany; *Ana Karina Cuentas Gallegos*, Centro de Nanociencias y Nanotecnología-UNAM, Mexico; *Alexander Forse*, University of Cambridge, UK; *Hiroto Nishihara*, Tohoku University, Japan.



Symposium 6 Electrochemical energy conversion and production of high-value chemicals for a sustainable future

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

Electrochemical energy conversion and chemical synthesis are central to the global transition toward a sustainable, defossilized energy economy. Hydrogen-based systems, including electrolysis, fuel cells, and electrochemical conversion of small molecules, offer promising pathways to decarbonize energy, transportation, and industrial sectors while enabling efficient storage of renewable electricity as fuels and value-added chemicals. This symposium will bring together researchers from academia and industry to discuss recent advances in electrochemical materials, devices, and systems for hydrogen technologies and Power-to-X applications. Emphasis will be placed on the design, synthesis, characterization, and integration of electrocatalysts, membranes, electrodes, and electrochemical interfaces for fuel cells, electrolyzers, and electrosynthetic processes. The symposium will also highlight progress in small-molecule conversion, electrocatalytic hydrogenation, biomass upgrading, membrane-electrode assemblies, and stack-level integration. Particular attention will be given to advanced experimental and theoretical approaches that elucidate reaction pathways, transport phenomena, degradation mechanisms, and long-term durability.

Topics include, but are not limited to: Operando and in situ characterization, computational and data-driven modeling, diagnostics, nanoscale interfacial phenomena, and strategies for performance optimization and system scalability. By fostering interdisciplinary exchange, the symposium aims to accelerate the development of efficient, durable, and scalable electrochemical technologies for clean energy conversion and storage.

KEYWORDS: Hydrogen technologies • Power-to-X • Novel electrocatalytic materials and mechanistic understanding • Fuel cells and electrolyzers • Small-molecule electrochemical conversion (CO₂, urea, ammonia, nitrate, nitrogen, glucose, glycerol, ethanol etc.) • Operando and in situ characterization • Computational modelling and diagnostics • Degradation mechanisms and mitigation strategies • Design of interfaces.

Symposium Organizers: *Sara Cavaliere* (Lead organizer), University of Montpellier, France;
Marta Costa Figueiredo, Eindhoven University of Technology, The Netherlands;
Nicolas Plumere, Technical University of Munich, Germany.



Symposium 7 Advances in materials and cells for alternative battery chemistries

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

This symposium will cover topics related to materials innovations for battery chemistries beyond the classical Li-ion battery. Although Li-ion batteries are a well-established technology, diversification of battery chemistries that can push energy density beyond its limits is essential for achieving next-generation sustainable energy storage solutions. Multivalent batteries (including Mg, Ca, Zn, and Al), metal-sulfur and metal-air batteries, as well as redox flow batteries are very promising as high-energy and resource-efficient devices but still face several challenges. Each of these cell concepts requires advances in electrode materials, electrolytes, and redox-inactive components.

Topics include, but are not limited to: Novel electrode materials, electrolytes and additives for new generation battery chemistries, inactive components; Advanced characterization techniques, including operando studies; Modelling and simulations.

KEYWORDS: Multivalent batteries • Metal-air batteries • Redox-flow batteries • Metal sulfur batteries • Electrolytes • Modeling

Symposium Organizers: **Zhirong Zhao Karger** (Lead organizer), Karlsruhe Institute of Technology (KIT), Germany; **Steen B. Schougaard**, Université du Québec à Montréal, Canada; **Ana Jorge Sobrido**, Queen Mary University of London, UK.

Symposium 8 Electrochemical Activation and Restructuring of Materials

Sponsored by **Div. 3: Electrochemical Energy Conversion and Storage**, **Div. 4: Electrochemical Materials Science**, **Div. 5: Electrochemical Process Engineering and Technology** & **Div. 7: Physical Electrochemistry**

The goal of this symposium is to bring together experimental, theoretical, and applied efforts to understand and control electrochemical activation and restructuring of materials and to design more active, durable, and sustainable materials for energy and environmental applications. The activity, selectivity, and stability of electrocatalysts are strongly influenced by their dynamic restructuring under electrochemical conditions. These processes include pulsed electrochemical treatments, surface oxidation/reduction cycling, (selective) leaching, and electrodeposition. These in-situ reactivation protocols can dramatically modify catalyst surfaces, alter electronic properties, and generate new active sites. These transformations are key to designing more active, durable, and sustainable materials for energy conversion, electrochemical synthesis, and environmental applications.

This symposium will bring together contributions on experimental, theoretical, and applied aspects of electrochemical activation. **Topics include, but are not limited to:** Electrochemical deposition and growth of catalyst structures; pulsed treatments and potential cycling for activation and restructuring; surface oxidation and reduction as drivers of catalyst transformation; strategies for reactivation and regeneration of deactivated catalysts; high-throughput, operando, and in situ methods to track surface restructuring during electrochemical polarization; machine learning and data-driven analysis of electrocatalyst synthesis, activity, and durability; and computational and modeling approaches to surface activation or deactivation processes.

KEYWORDS: Electrocatalysis • Electrochemical activation and restructuring • Oxidation/reduction cycling/pulsing • Catalyst reactivation and regeneration • Electrodissolution and Electrodeposition Operando and in situ characterization • High-throughput experimentation • Machine learning and data-driven electrocatalysis

Symposium Organizers: **Jon Ustarroz**, Université Libre de Bruxelles, Belgium;
Nejc Hodnik, National Institute of Chemistry, Slovenia; **Yang Yang**, University of Central Florida, USA; **Raphael Chattot**, University of Montpellier, France.

Symposium 9 Advances in corrosion science and surface modification for mitigation and functionality

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

The goal of this symposium is to showcase cutting-edge developments in corrosion science and electrochemical surface modification, spanning fundamental mechanisms to the design of next-generation protective materials. As global infrastructure, energy systems, and emerging technologies increasingly rely on durable and sustainable materials, understanding and tailoring electrochemical interfaces is more critical than ever. This symposium will highlight innovations in corrosion mitigation, surface functionalization, and advanced characterization that enable predictive control over material degradation.

Topics include, but are not limited to: Green and environmentally benign surface treatments and conversion coatings; Advanced protective coatings; Electrodeposition, electroless deposition, and additive-manufacturing-enabled surface treatments; Corrosion mechanisms studied via in-situ/operando electrochemical and spectroscopic techniques; Localized electrochemistry, scanning probe methods, and high-resolution surface analysis; Corrosion in extreme or emerging environments: radiation fields, molten salts, supercritical fluids, and hydrogen systems; Machine learning and data-driven prediction of corrosion behaviors; Integration of modelling and simulation across length-scales; Bio- and medical-material interfaces: electrochemical stability and biocompatibility; Tribocorrosion and mechanically coupled degradation; Corrosion-Resistant materials and monitoring in renewable energy infrastructure, electronics, and electric vehicles.

KEYWORDS: Corrosion • protective coatings • passivation • tribocorrosion • sustainable surface treatments • in situ/operando characterization • multiscale modeling • machine learning in corrosion

Symposium Organizers: **Samantha M. Gateman**, University of Western Ontario, Canada; **Isao Shitanda**, Tokyo University of Science, Japan; **Carlos A. Martinez-Huitle**, Federal University of Rio Grande do Norte, Brazil; **Dirk L. Engelberg**, University of Manchester, UK.



Symposium 10 Protection and recovery of natural resources through electrochemical strategies

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

To address the overexploitation of natural resources (water-air-soil and contained critical raw materials) and avoid the reliance in fossil-based or other harmful/non-renewable ones, it is essential to devise innovative solutions that secure circularity while advancing in efficiency and sustainable degrowth. Electrochemistry and electrochemical engineering offer strategies for this purpose, as will be shown in this symposium. Comprehensive resource management strategies—encompassing water, soil, air, and energy—have given rise to transformative frameworks including the UN Sustainable Development Goals (SDGs) and carbon neutrality targets, which are the main drivers of the energy transition and a circular, sustainable economy. Cross-disciplinary collaboration is also required to address the current global sustainability challenges. In particular, the convergence of materials science, (photo)(sono) electrochemistry, and process engineering is unlocking powerful new opportunities to deliver lasting societal benefits. Electrifying chemical processes with renewable electricity stands at the heart of sustainable industrial transformation and the transition to a cleaner future.

Topics include, but are not limited to: Electrochemical technologies for water purification, wastewater treatment, soil remediation, and air pollution control (including environment-oriented CO₂RR strategies); Photo- and sono-assisted electrochemical processes for more sustainable environmental protection and waste valorization; Electrorefining and recycling approaches that integrate waste treatment with the production of high-value chemicals and resource recovery to support circular economy principles; Water-Energy nexus, highlighting renewable energy use in air, water, and soil treatment coupled with energy recovery and/or fuel production from these. Processes; Innovative electrochemical reactor designs and novel materials development for environmental applications; Scale-up of electrochemical systems and durability assessment in the context of environmental applications; Integration of experimental and theoretical research to advance green electrochemical technologies; Environmental evaluation of electrochemical processes, including life cycle analysis; Implementation of electrochemical science and technology in industry to devise greener manufacturing approaches and close-loop processing.

KEYWORDS: Clean industry and green production and synthesis • Coupling methods (photo-/sono-assisted) and paired electrolysis • Natural resources restoration and critical resources recovery • Oxidation and reduction processes for clean water, air and soil • (Photo)(sono)electrochemical technologies for green production of chemicals, fuels and energy • Scale-up of electrochemical systems for environmental protection • Use of sustainable materials in electrochemical processes • Waste valorization

Symposium Organizers: *Dulce M. Morales, University of Groningen, The Netherlands; Omotayo A. Arotiba, Univ. of Johannesburg, South Africa; Ignasi Sirés, Univ. de Barcelona, Spain; Jay Wadhawan, University of Hull, United Kingdom.*



Symposium 11 Wiring molecules to electrodes: Engineering electron flow in (bio)molecular devices

Sponsored by **Division 2: Bioelectrochemistry**, **Division 6: Molecular Electrochemistry** & **Division 7: Physical Electrochemistry**

Hybrid electrode/molecule interfaces have unlocked vast potential for tailoring electron transport in applications such as molecular electronics, spintronics, electrocatalysis, and sensing. The extensive chemical space of (bio)molecular design enables researchers to engineer a wide range of electrical behaviors in molecular-based devices. This symposium will highlight recent advances in the design and characterization of molecular devices with diverse geometries, including two-, three-, or more-electrode configurations, in which molecular design plays a pivotal role.

Topics include, but are not limited to: Micro- and nanoscale molecular junctions, including those with (electro)chemically controlled gating; Emerging charge-transport properties in redox-based molecular wires; Spin-dependent charge transport in both molecular junctions and molecular-based electrocatalytic platforms; Biomimetic molecular devices; Charge-transport characterization in biological motifs, e.g., peptide sequences, proteins, DNA; Applications of electrode/molecule interface design in electrochemical (bio)sensing; Theoretical and computational modeling of charge transport in molecular wires; Integrated solutions for molecular-based devices with applications in electronics, sensing, and electrocatalysis; Development of new technical approaches to in operando characterization of molecular electronic devices.

This symposium will convene leading scientists from diverse yet complementary disciplines, united by a shared goal: to deepen our understanding of and refine control over molecular charge transport. Through dynamic workshops and interactive sessions, we aim to foster vibrant discussions and spark cross-disciplinary collaborations that accelerate innovation across the broad field of (Bio)Molecular Electronics. Join us in shaping the future of molecular-scale technologies, where biology, chemistry, physics, and engineering converge to unlock new possibilities.

KEYWORDS: (Bio)Molecular Electronics • Electrochemically Controlled Molecular Charge Transport • Spin-dependent Molecular Charge Transport • Electrically Transduced Molecular Sensing • Neuromorphic Molecular Devices • In Silico Molecular Wires • Bio-inspired Charge Transport • Molecular charge transport characterization across scales.

Symposium Organizers: *Ismael Diez Perez* (Coordinator), King's College London, UK;
Magdaléna Hromadová, J. Heyrovský Institute of Physical Chemistry, Czech Republic;
Simone Ciampi, Curtin University, Australia.



Symposium 12 Illuminating molecular electrochemistry: Fundamentals to analytical breakthroughs

Sponsored by **Division 6: Molecular Electrochemistry**, **Division 1: Analytical Electrochemistry**, **Division 2: Bioelectrochemistry** & **Division 4: Electrochemical Materials Science**.

In recent years, the combination of molecular electrochemistry with luminescence or plasmonics has emerged as a powerful approach for advancing analytical science and photoelectrocatalysis. This symposium will highlight fundamental principles, recent advances, and (bio)analytical applications of redox-active molecules—including organic, organometallic, and coordination compounds—or hybrid systems (nanomaterials coupled to a molecular probe) exhibiting luminescent or plasmonic properties.

Topics include, but are not limited to: electrofluorochromism, electrogenerated chemiluminescence (ECL), plasmonics, catalysis, the design of novel molecular luminophores, mechanistic insights, the development of enabling instrumentation for coupling electrochemistry with light (EC-TERS, dark-field microscopy, etc.), theoretical and simulation studies, and applications in sensors, biosensors, and electrocatalysis.

KEYWORDS: Spectroelectrochemistry • Electrogenerated (chemi)luminescence • Luminescent electroactive molecules • Plasmonics • Optical microscopy & imaging • Analytical and bioanalytical applications • Photo-electrocatalysis.

Symposium Organizers: **Olivier Buriez**, CNRS, Ecole Normale Supérieure, Paris, France; **Corinne Lagrost**, University of Rennes, France; **Guobao Xu**, Changchun Institute of Applied Chemistry, China; **Susana Cordoba de Torresi**, University of São Paulo, Brazil.

Symposium 13 Operando Techniques for Observing Electrochemical Interfaces

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

Understanding the structure and properties of electrochemical interfaces in real time is essential for advancing energy conversion and storage, electrocatalysis, and corrosion science. This symposium focuses on state-of-the-art operando and in situ techniques that reveal the dynamic structure, composition, and reactivity of interfaces under working conditions. As electrochemical systems become more complex, the ability to probe phenomena such as the electrochemical double layer, solid-electrolyte interphase (SEI), catalyst restructuring, and ion transport with high temporal and spatial resolution is increasingly critical. The sessions will highlight recent developments in spectroscopy, microscopy, and scattering techniques capable of capturing interfacial processes as they unfold.

Topics include, but are not limited to: Operando X-ray and neutron methods, vibrational and optical spectroscopies, electrochemical scanning probe methods, cryogenic and environmental electron microscopy, electrochemical mass spectrometry, and multimodal characterization approaches. Contributions that integrate experimental measurements with theory, simulation, or machine-learning-guided analysis are also encouraged. This symposium aims to foster cross-disciplinary discussion on emerging tools and the fundamental insights they enable. Emphasis on how operando observations can inform the design of improved batteries, electrolyzers, fuel cells, and other electrochemical technologies.

KEYWORDS: Operando spectroscopy • Operando structural characterization • Multimodal and correlative characterization • Ion arrangement and charge transfer at interfaces • Interphases, restructuring, and degradation processes • Computational and data-driven approaches • Batteries • Electrocatalysis

Symposium Organizers: **Robert Weatherup**, University of Oxford, UK; **María Escudero Escribano**, Catalan Institute of Nanoscience & Nanotechnology, Spain; **Yu Katayama**, University of Osaka, Japan; **Reshma Rao**, Imperial College London, UK.



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Symposium 14 Computational and Data-Driven Electrochemistry

Sponsored by Division 7: Physical Electrochemistry.

The rapid development of computational modeling and artificial intelligence (AI) is transforming how scientists conduct research. Many long-standing problems in electrochemistry that electrochemists have long dreamed of solving now, all of a sudden, seem within reach with the help of computation and AI. In this symposium, we wish to bring together researchers from different backgrounds to discuss recent progress and future prospects at the intersection of computation and data-driven electrochemistry. **Topics include, but are not limited to:** To what extent can AI accelerate ab initio modeling of electrochemical systems and bridge the gap between simulations and experiments? How far can AI push the spatial and temporal limits of state-of-the-art in situ/operando characterization techniques for probing electrochemical systems? How can AI/robotics help close the loop of multi-level optimization of electrochemical systems, ranging from materials design and formulation engineering to manufacturing optimization? How can agentic AI and large language models accelerate research by coordinating simulations and experimental campaigns? Catalyst design and optimization: high-throughput screening, microkinetic modelling, AI/ML models, activity-selectivity-stability descriptors; Mechanistic and interface science: adsorbate solvation, electrolyte and local pH effects, catalyst-support interactions, and surface coverage phenomena.

KEYWORDS: Atomistic and first principles modeling • Multiscale electrochemical modelling • Machine learning (ML) for property prediction • High-throughput materials screening • AI for electrochemistry • Automated and autonomous experiments • AI-guided optimization of electrochemical devices and manufacturing • Large language models (LLMs) and agentic systems for electrochemistry.

Symposium Organizers: **Chao Zhang** (Coordinator), Uppsala University, Sweden; **Federico Calle-Vallejo**, University of the Basque Country, Spain; **Samira Siahrostami**, Simon Fraser University, Canada; **Maria K. Chan**, Argonne National Laboratory, USA.



Symposium 15 Micro- and Nanoscale Platforms to Study Electron Transfer in Inorganic, Organic, and Biological Matter: from Fundamentals to Biomimetic Interfaces

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

This symposium seeks to gather scientists working within the expanding community of (Bio)Molecular Electronics and (Bio)Self-assembly, where the key processes are connected with the electron and mass transfer through molecular or biomolecular interfaces and their structures. To this end, the symposium will cover all aspects of electron transfer in molecular or biomolecular moieties that benefit from an electrified interface, where electrochemical control is or could play an essential role.

To bring together researchers with very distinct perspectives on molecular electron transfer, the symposium will gather work spanning fundamental approaches, including electron transport in membranes and in biomimetic 2D (monolayers) and 3D (e.g., liposomes) structures. This broad view of the topic will be achieved by attracting researchers interested in different aspects of molecular electron transfer, namely, from physical mechanisms and structural aspects to potential applications of self-assembled systems, including MOFs and COFs as platforms for catalyst attachment, molecular recognition, and novel electron-mediating complexes.

This symposium has the potential to attract scientists from the expanding fields of (Bio)Molecular Electronics and Biophysical Chemistry.

KEYWORDS: 3D (e.g., liposomes, exosomes) • SAM-based molecular junctions • Single-molecule nanostructures and their functions • Self-assembly of bio-inorganic structures • Electron transport in model membranes • Nano/Micro-structured electrodes • Electrochemical molecular spectroscopies • Biomimetic membranes

Symposium Organizers: *Giovanni Valenti, University of Bologna, Italy;*
Renata Bilewicz, University of Warsaw, Poland; Josh Hihath, Arizona State University, USA;
Ariel Furst, Massachusetts Institute of Technology, USA.



Symposium 16 Engineering Advances for Industrial Electrochemistry and Large-Scale Energy Conversion and Storage

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

Electrochemical systems are vital to the production and transformation of key chemical compounds, ranging from commodity reactants to high-value products including inorganic oxidants, organic molecules, hydrogen peroxide, hydrogen, carbon-derived fuels and ammonia. This session will connect fundamental electrochemical principles to real-world applications in electrolyzers, fuel cells, flow batteries, and other industrial-scale reactors. This session seeks to showcase progress in the scale-up of more sustainable electrochemical technologies for energy and manufacturing sectors, with a primary emphasis, though not limited, to electrochemical energy conversion, storage, and electrosynthesis, alongside fuel cells, electrolyzers, electrodialysis, and other industrial uses.

Topics include, but are not limited to: Electrochemical technologies for sustainable energy conversion and storage, such as electrolyzers, fuel cells, and flow batteries; Optimization of large-scale systems, including heat management, current distribution, shunt currents, and advanced modelling approaches; Integration of AI and ML in the design, scaling and management of electrochemical technologies; Engineering of critical components, such as electrodes, current collectors, interconnects, bipolar plates, electrode frames, and balance of plant elements; Flow dynamics and reactor design to improve efficiency and performance of electrochemical processes; Progress in membrane and separator technologies for industrial applications, including (reverse-)electrodialysis, desalination or similar; Electrosynthesis of high-value chemicals and electrochemical separation methods; Electrochemical routes to fuel production, energy carriers, and their incorporation into chemical synthesis, including CO₂-based technologies; Development and industrial deployment of electrochemical devices.

By addressing these key topics, the symposium aims to expedite the widespread industrial implementation of more sustainable electrochemical technologies, placing particular emphasis on devices and engineering concepts for energy conversion and storage, as well as the electrosynthesis of valuable chemicals and fuels.

KEYWORDS: Electrochemical reactor design from cells to stacks • Design strategies for scale-up and scaling of components • Modelling and diagnostics including AI and ML • Translation of concepts to scaled applications for membrane and separator technologies • Electrosynthesis of high-value-added chemicals and fuels.

Symposium Organizers: **Fernando Arenas**, University of Southampton, UK; **Anna K. Mechler**, RWTH Aachen University / Forschungszentrum Jülich, Germany; **Paul J. A. Kenis**, University of Illinois at Urbana-Champaign, USA; **Edward Brightman**, University of Strathclyde, UK.



Symposium 17 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: *Mark Symes*, University of Glasgow, UK; *Zeliha Ertekin*, University of Glasgow, UK; *Edward Brightman*, University of Strathclyde, UK; *Stephen Lyth*, University of Strathclyde, UK



78th Annual Meeting

of the International
Society of Electrochemistry

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-min journey to city centre).

Transportation

Flights: Three international airports surrounding Glasgow with Glasgow airport just 15 minutes from the city centre and Edinburgh less than an hour. Direct flights from more than 165 scheduled destinations to Glasgow and Edinburgh, with multiple connecting flights (~1 hour duration) between Glasgow and London Heathrow, Paris, Frankfurt and Amsterdam every day, opening up connections to most major cities in the world.

Rail: Glasgow is well connected by train from across the UK and into Europe, with 20 trains per day to London allowing 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 is located on Scotland's west coast and hence benefits from the warming influence of the Gulf Stream. The average daily high in September is **16 °C (62 °F)** and the average daily low in September is **10-11 °C (50-52 °F)**. It receives around 115 hours of sunshine on average in September. Sunrise ≈ 06:30, sunset ≈ 20:00.

Accommodation

Glasgow boasts a wide range of accommodation within easy access of the SEC, with approximately **11,000 hotel rooms within 2 miles of the city centre**. This includes over **1,400 rooms on-site at the SEC across 8 hotels**, around 9,500 hotel rooms within less than 15 minutes' travelling time, and over 2,000 student rooms, many within walking distance.



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 **1 December, 2026**.
The closing date for the submission of abstracts will be the **31 March, 2027**.

For details please refer to the ISE website.

46th Topical Meeting

of the International Society of Electrochemistry



Electrochemical Concepts for Carbon Footprint Reduction

22 -25 November, 2027 - **Pattaya, Thailand**



www.ise-online.org/meetings/topical46

Important Dates

Abstract submission opens: **17 May, 2027** ends: **27 July, 2027**

Registration opens: **30 June, 2027** ends: **29 September, 2027**

Conference Venue

Royal Cliff Grand Hotel Pattaya - <https://www.royalcliff.com/royal-cliff-grand-hotel>
353 Phra Tamnuk Road, Pattaya, Chonburi, Thailand 20150.

Transportation

Flights: There are three options for air travel:

- **U-Tapao Pattaya International Airport:** Located 44 km southeast of Pattaya, the airport is about an hour by car or taxi from the conference center.
- **Suvarnabhumi International Airport** (Bangkok): Delegates arriving at Suvarnabhumi can take a bus, van, or taxi to the conference hall, which takes approximately 1 hour.
- **Don Muang International Airport** (Bangkok): Located in northern Bangkok, 2 hour-journey from Don Muang to the conference center takes about depending on traffic.

Private Vehicle: 1.5 hour drive from Bangkok to the venue via the Bangkok-Chonburi Motorway (Highways 34 and 3) or the Motorway (Highways 7 and 3).

Public Transport: There are two recommended public transport options:

- **Train:** 2.5 hours from Bangkok's Hualamphong Station.
- **Bus:** From Suvarnabhumi International Airport and Ekkamai Bus Terminal to Pattaya Transfer and Pattaya North Bus Station, respectively. 2.5 hours then take a taxi.

PEACH Transport Service: PEACH offers airport transfer services with direct pick-up from the airport to the conference, available as either one-way or round-trip options.

Climate

The climate in Pattaya is cooler from **November to February**, compared to other seasons. During this period, temperatures are more comfortable, ranging from **28 °C to 30 °C**. Rainfall is minimal, and humidity is generally low.

Accommodation

This convention offers four distinct styles of accommodation: **Royal cliff beach hotel** (casual luxury), **Royal cliff beach terrace** (exotic luxury), **Royal cliff grand hotel** (formal luxury), and **Royal wing suites & spa** (ultimate luxury). Featuring a variety of restaurants and bars, top-tier services, modern facilities, recreational activities, and dedicated zones for families and children (<https://www.royalcliff.com>) as well as several hotels nearby.



Organizing Committee

Chularat Wattanakit (Chair),

Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand

Montree Sawangphruk (Co Chair),
(VISTEC), Thailand

Carlos Ponce de Leon,
University of Southampton, UK

Sara Cavaliere,
University of Montpellier, France

Alexander Kuhn,
(VISTEC), Thailand

Local Organizing Committee

Supawadee Namuangruk, *NANOTEC, Thailand.*

Guobao Xu, *Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, China*

Shinsuke Inagi, *Institute of Science Tokyo, Japan*

Sareeya Bureekaew, *VISTEC, Thailand*

Kamonwad Ngamchuea,
Suranaree University of Technology, Thailand

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Anittha Prasertsab, *VISTEC, Thailand*

Chawin Srisomwat, *Thammasat University, Thailand*

Wanmai Srisuwanno,
Chiang Mai University, Thailand

Invitation

You are cordially invited to the 46th Topical Meeting of the International Society of Electrochemistry, to be held in Pattaya, Thailand. Join us at the **Royal Cliff Grand Hotel** where the meeting will combine an outstanding scientific programme with the opportunity to experience Thailand's world-renowned hospitality and cuisine, from authentic street food to refined regional specialities. Once a traditional fishing village, Pattaya has grown into a vibrant international destination, providing an ideal setting for scientific exchange, networking, and new international collaborations.



Scientific Themes

Electrochemistry is a powerful tool for developing a sustainable society, enabling efficient energy conversion and storage, the production of clean fuels and chemicals, and environmentally friendly manufacturing processes. Electrochemical technologies, such as batteries, fuel cells, water electrolysis for green hydrogen production, electrochemical CO₂ conversion, and wastewater treatment, are essential for reducing greenhouse gas emissions and decreasing dependence on fossil resources.

This Topical Meeting will be a forum for scientists to share and discuss recent advances in sustainable electrochemistry, including: clean energy production from fuel cells, materials design for energy storage, sustainable organic electrosynthesis, new nanomaterials for electrocatalysis, and theoretical and computational approaches for sustainable chemistry. This includes four symposia as follows:

- Electrochemical Energy Conversion
- Electrochemical Energy Storage
- Environmental & Waste-to-Value Electrochemistry
- Molecular-Level Understanding in Modern 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 (www.ise-online.org/meetings/topical46).

The site will be open for the submission of abstracts on **17 May, 2027**.
The closing date for the submission of abstracts will be **27 July, 2027**.

For details please refer to the ISE website.

79th Annual Meeting

of the International Society of Electrochemistry



**Electrochemical Interfaces at Scale:
Materials, Manufacturing, and AI**

17-22 September, 2028 - *San Diego, USA*



www.ise-online.org/meetings/annual79

Important Dates

Abstract submission opens: **30 December, 2027** ends: **10 April, 2028**

Registration opens: **21 March, 2028** ends: **29 June, 2028**

Conference Venue

The meeting will be held at **The Westin Carlsbad Resort & Spa, Carlsbad, CA, USA**, which forms part of a spacious resort and conference complex overlooking the Pacific, combining meeting facilities with a relaxed, family-friendly environment, outdoor pools, spa and leisure facilities.

Transportation

International Flights:

Carlsbad is approximately **33 miles (53 km) north of San Diego International Airport (SAN)**, the recommended gateway for international participants, with international services and connections through major U.S. hubs. **Los Angeles International Airport (LAX)**, around 95 miles (153 km) away, offers a wider range of direct long-haul flights. **John Wayne Airport (SNA)** in Orange County is another alternative, particularly for domestic connections.

Getting to Carlsbad:

From San Diego Airport, Carlsbad can be reached by **taxi, Uber/Lyft, private transfer or rental car** in around **40–50 minutes**, depending on traffic. Two **COASTER rail stops (Carlsbad Village & Poinsettia)** link directly to downtown San Diego and to Amtrak Pacific Surfliner via Oceanside—handy for car-free attendees.

From LAX, allow approximately **2–2½ hours by car**, longer at peak times. A rental car may be useful for participants wishing to explore San Diego and the Southern California coast.

Climate

Reliable, pleasant weather (ideal for September ISE timing). Typical highs of about **22.8–23.9 °C** with very low rain—great for indoor/outdoor lunch and posters.

Accommodation

Carlsbad offers a wide range of accommodation, with more than **5,000 hotel rooms** across the city. The Westin and adjoining Sheraton provide 458 rooms on site, with numerous additional hotels and more affordable options nearby, all within easy reach of the conference venue.



Organizing Committee

Iryna Zenyuk, *University of California Irvine, USA*

Adam Weber, *Lawrence Berkeley National Lab, USA*

Yu Huang, *University of California Los Angeles, USA*

Shelley Minteer, *Missouri University of Science and Technology, USA*

Paul Kenis, *University of Illinois Urbana Champaign, USA*

Invitation

Carlsbad offers a relaxed Southern California setting on the Pacific coast, just north of **San Diego**. With **seven miles of coastline**, beaches, year-round outdoor activities, golf, shopping and a lively culinary scene, the city combines the atmosphere of a coastal resort with easy access to the wider San Diego region. **Carlsbad Village** is the heart of the city, with restaurants, cafés, bars and shops close to the beach.

The meeting will be held at The **Westin Carlsbad Resort & Spa**, part of a spacious resort and conference complex overlooking the Pacific. The venue combines extensive meeting facilities with restaurants, bars, pools, spa and leisure facilities, offering opportunities for informal discussion and networking outside the scientific programme. The family-friendly setting is also ideal for accompanying guests, with **Legoland California** immediately nearby and Carlsbad's beaches and attractions within easy reach.

The scientific programme will bring together **electrochemists, materials scientists and engineers** to understand and control electrified interfaces from the atomic level through to working devices. It will connect *operando* characterization and multiscale modelling with **data-driven design, AI/ML and automation**, accelerating technology translation and strengthening the link between fundamental mechanisms and high-volume, low-carbon manufacturing.

Combining a strong scientific programme, excellent conference facilities and a distinctive Pacific coastal setting,

We look forward to welcoming you to Carlsbad, San Diego in 2028!

Scientific Themes

- Electrochemistry for critical materials recovery
- Electrons to fuels, feedstocks and back
- Autonomous experiments and AI
- Powering data centers from fundamentals of fuel cells and batteries to applications
- Interfaces for controlled reactions
- Bioelectrochemical technologies



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/annual79).

The site will be open for the submission of abstracts on **30 December, 2027**.
The closing date for the submission of abstracts will be **10 April, 2028**.

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 **5.8**.



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

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

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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