International Society of Electrochemistry
Division 2 (Bioelectrochemistry)

ANNUAL REPORT 2024-2025 ACTIVITIES

International Society of Electrochemistry
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Chair: Carlo Santoro

Vice Chair : Felipe Conzuelo

Chair Elect: Donal Leech

Vice Chair: Janice Limson

Past Chair: Ilaria Palchetti

Agenda

Meetings

Annual Meeting

- AM 2025 Mainz, Germany
- AM 2026 Sydney, Australia
- AM 2027 Glasgow, UK (Proposals for Symposia)

Topical Meeting

- Eventually Division 2 Topical Meetings in the near future?
- Sponsored meetings

Other things:

- Budget
- Awards nominations– including rule changes/new prize
- Electrochimica Acta
- Miscellaneous

ACTIVITIES in 2024 and 2025

ANNUAL MEETINGS and TOPICAL MEETINGS

76th Annual Meeting of ISE, 7-12 September 2025, Mainz, Germany

«Electrochemistry: From Basic Insights to Sustainable Technologies»

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

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ANNUAL MEETINGS and TOPICAL MEETINGS

Mainz 2025

76th Annual Meeting of the International Society of Electrochemistry

Symposium 2 Bioelectrochemistry from fundamentals to sustainable applications
Sponsored by:
Division 2: Bioelectrochemistry
Symposium Organizers:
Ilaria Palchetti (lead organizer), University of Florence, Italy.
Elisabeth Lojou, Aix-Marseille University, France.
Omer Yehezkeli, Technion, Israel.
Nicolas Plumere, TUM, Germany.

Symposium 3 Electrochemical and bioelectrochemical synthesis of small molecular products
Sponsored by:
Division 2: Bioelectrochemistry
Division 3: Electrochemical Energy Conversion and Storage
Division 5: Electrochemical process engineering and technology
Symposium Organizers:
Carlo Santoro (lead organizer), UNIMI-Bicocca, Italy.
Corina Andronescu, University Duisburg-Essen, Germany.
Fatwa Abdi, City University of Hong Kong, Hong Kong.
HyungKuk Ju, Dankook University, South Korea.

Symposium 13 Mechanisms in molecular electrochemistry for (bio-)catalysis, (bio-)sensing and electronics
Sponsored by:
Division 6: Molecular Electrochemistry,
Division 1: Analytical Electrochemistry,
Division 2: Bioelectrochemistry
Division 7: Physical Electrochemistry
Symposium Organizers:
Federico Polo (lead organizer), *Ca' Foscari University of Venice, Italy.*
Magdaléna Hromadova, *J. Heyrovský Institute of Phys Chem, Czech Republic.*
Hye Jin Lee, *Kyungpook National University, South Korea.*
Valentina Pifferi, *University of Milan, Italy.*
Kristina Tschulik, *Ruhr-University Bochum, Germany.*

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ANNUAL MEETINGS and TOPICAL MEETINGS

Sydney 2026

77th Annual Meeting of the International Society of Electrochemistry

6 to 11 September 2026

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ANNUAL MEETINGS and TOPICAL MEETINGS

Sydney 2026

77th Annual Meeting of the International Society of Electrochemistry

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.

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

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

JOINT (SILENT) AGREEMENT WITH DIVISION 1 ON BIOSENSORS, leads at alternate years

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ANNUAL MEETINGS and TOPICAL MEETINGS

Sydney 2026

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 (Coordinator)
Janice Limson, Biotechnology Innovation Centre, Rhodes University, Makhanda, South Africa;
Yang Liu, James Cook University, Australia.

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Sydney 2026

77th Annual Meeting of the International Society of Electrochemistry

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

*Sponsored by: Division 3: **Division 2: Bioelectrochemistry** & Division 4*

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_2, 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_2, 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.

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SPONSORED MEETINGS 2024

• 27-26 July 2024: ESEAC 2024 Meeting
Location: Ulm, Germany; Contact: Christine Kranz
https://www.uni-ulm.de/nawi/eseac-2024/

• 14 – 17 August 2024: ISESS (International Symposium on Electrochemistry and Surface Science), satellite meeting of the 75th ISE Annual Meeting.
Location: Guelph, Canada; Contact: Aicheng Chen
https://www.isess.uoguelph.ca/

• 23-25 October 2024: AMYC-BIOMED 2024
Location: Rome, Italy; Contact: Catia Arbizzani
https://2024amycbiomed.webnode.page/

• 25-27 November 2024: Dresdner Sensor-Symposium 2024
Location: Dresden, Germany; Contact: Kristina Böhlandt-Brandes
https://dechema.de/dss17.html

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SPONSORED MEETINGS 2025 (up to now)

- 13-17 January 2025: XVIIIth conference of the French Group of Bioelectrochemistry

Location: Autrans Méaudre en Vercors, France; Contact: Julien Vieillard

- 12-15 August 2025: The 20th International Symposium on Electroanalytical Chemistry (20th ISEAC)

Location: Changchun, China; Contact: Xu Guobao
https://iseac2025.scimeeting.cn/

- 15-16 September 2025:

2025 workshop on “Biohybrid Systems: From Fundamental Understanding to Applications” (RedoxShields)
Location: Marseille, France; Contact: Christophe Léger, CNRS. leger@imm.cnrs.fr
https://redox-shields.org/2025-workshop/

- 24 – 29 September 2025:

2nd International Workshop on Bioelectrochemistry (2nd BES Workshop)
Location: Hiroshima Japan;
Contact: Hisakage Funabashi, Hiroshima University, hisafuna@hiroshima-u.ac.jp
http://workshop2025.bioelectrochemical-soc.org/index.html

DIVISION 2
MONEY USED and AVAILABILITY

Funding availability:

1) Portion equally divided among different divisions (15000 CHF / #divisions)
2) Portion proportional to numbers of members affiliated to Division 2

Money needs to be spent otherwise go back to ISE.
In 2023 and 2024, money went back to ISE because we did not spend much.

Expenditure	**€ 2.000,00**
Income	**€ 5.471,93**
Leftover DIVISION 2 (2024)	**€ 3.471,93**

ACTIVITIES in 2024 and 2025

AWARDS

- **NOMINATIONS**
- **RULES CHANGES (of existing prizes)**
- **NEW AWARDS**

International Society of Electrochemistry
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AWARD of DIVISION 2 for 2025

Katsumi Niki Prize for Bioelectrochemistry

https://www.ise-online.org/awards/awards.php#top

In 2025

Prof.
Alexander Kuhn

Professor Alexander Kuhn has been awarded the Katsumi Niki Prize for Bioelectrochemistry in recognition of his groundbreaking work on wireless, self-regulated electrochemical systems inspired by biological processes. His pioneering contributions to bipolar electrochemistry have advanced applications in bioelectrocatalysis, synthetic biology, and autonomous diagnostics, exemplifying the transformative potential of bioelectrochemistry across disciplines.

Award Lecture will be given next year at the Annual Meeting in Sydney

AWARD of DIVISION 2 for 2026

Bioelectrochemistry Prize

https://www.ise-online.org/awards/awards.php#top

The Bioelectrochemistry Prize of ISE Division 2 may be awarded every two years to a scientist who has made an important contribution to the field of bioelectrochemistry.

Nominations can be made by individuals or institutions. Candidates are also allowed to apply on their own behalf. **(SOON TO BE CHANGED)**

NOMINATIONS ARE WELCOME!!!

Previous winners

Frieder Scheller (2008), Arkady Karyakin (2012), James Rusling (2014), Jacek Lipkowski (2016), David Waldeck (2018), S. Minteer (2020), R. Bilewicz (2022).

AWARD Change rules

Bioelectrochemistry Prize

The Bioelectrochemistry Prize of ISE Division 2 may be awarded every two years to a scientist who has made an important contribution to the field of bioelectrochemistry.

Rules:

- The Bioelectrochemistry Prize of ISE Division 2 may be awarded every two years to a scientist who has made an important contribution to the field of bioelectrochemistry.

- The prize consists of a certificate and the sum of 600 EUROS, which includes a contribution towards travel expenses for the winner to attend the ISE Meeting where the award will be presented. ISE will pay for her/his registration and banquet fees.

- Nominations can be made by individuals or institutions. Candidates may not nominate themselves.

- The winner is expected to attend the ISE Meeting where the award will be presented and to give a 40-minute lecture at a symposium which is organized or co-organized by ISE Division 2 “Bioelectrochemistry” during the following year.

- The nomination/application should consist of no more than 1000 words giving details of the relevant contribution of the individual. Nominations/applications should be uploaded via the Submission Site and should be accompanied by a curriculum vitae of the nominee and copies of 5 scientific articles, judged to be the most significant in the candidate's production and at least two letters supporting the nomination. All documents uploaded must be in PDF format.

- The prize winner is selected by a committee chaired by the chairperson of Division 2 “Bioelectrochemistry” and comprising 4 other members representing different geographic areas. These members shall be appointed each year by the chairperson and must be distinguished scientists active in the field; re-nomination is possible.

In discussion within the executive council (EC) of ISE

International Society of Electrochemistry Division 2 (Bioelectrochemistry)

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AWARD new Award

"Young-Scientist" Prize for Bioelectrochemistry (Division 2)

DESCRIPTION: The Early Career Bioelectrochemistry Prize of ISE Division 2 recognizes achievement of younger researchers in the field of Bioelectrochemistry. Candidates must meet the age eligibility condition according to Early Career Bioelectrochemistry Prize rules.

RULES :

- The '*Early Career Bioelectrochemistry Prize of ISE Division 2'* is supported by ISE Division 2 "Bioelectrochemistry". It may be awarded annually, on the basis of the Division 2 funds.
- In order to be eligible to apply, a scientist must hold a PhD or an equivalent doctoral degree. The PhD shall have been successfully defended > 2 and ≤ 7 years prior to January 1st of the year of the award, in recognition of her/his recent achievements in Bioelectrochemistry. The period time limit (7 years) may be extended, upon request of the applicant, for example due to formal period(s) of maternal, paternal or adoptive leave, compulsory leave for civil or military service, illness or other exceptional circumstances. The applicant is asked to provide evidence in support of their extension request. This evidence has to be submitted as a part of the curriculum vitae. Each application for extension will be considered individually by the award committee.
- The prize consists of a certificate and the sum of **500** Euro. Candidates must be Division 2 ISE members in good standing.
- Candidates should apply on their own behalf. The application should consist of the following items: curriculum vitae, list of publications, maximum of five of the most relevant publications, statement of no more than 1000 words highlighting the applicant's contributions to bioelectrochemistry and and at least two letters supporting the nomination.
- The prize winner is selected by a committee chaired by the chairperson of Division 2 "Bioelectrochemistry" and comprising two other members. These members must be distinguished scientists active in the field of Biolectrochemistry and Division 2 ISE members in good standing (i.e. past chair and chair elect). Re-appointment in successive editions of the Prize is possible.
- The prize is presented to the recipient at the Awards Session of the Annual ISE Meeting in the following year. The winner is expected to give a 20-minute lecture at a symposium which is organized or co-organized by ISE Division 2 "Bioelectrochemistry" during this Annual Meeting. ISE will pay for her/his registration and banquet fees.
- Previous winners of the Prize may not apply. Unsuccessful candidates may re-apply in a subsequent year.

In discussion within the executive council (EC) of ISE

AWARD new Award

"Young-Scientist" Prize for Bioelectrochemistry (Division 2)

In discussion within the executive council (EC) of ISE

Point of discussion:
POINT 1) Shall we give a name to the award?

POINT 2)
The PhD shall have been successfully defended > 2 and ≤ 7 years prior to January 1st of the year of the award, in recognition of her/his recent achievements in Bioelectrochemistry.

It followed ERC rules, and it not not function of the age but it is in function of when you have got your PhD.
ERC Starting Grant from 2026 will change rules with period from 0 to 10 years after completion of PhD.
Shall we change the rules accordingly? OPEN DISCUSSION

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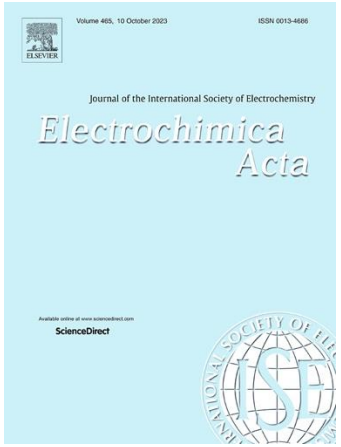

Electrochimica Acta

A special issue of Electrochimica Acta is planned on selected original contribution made at the conference. The selection is made by an editorial Committee comprising the following Editors and Guest Editors.

Support Electrochimica Acta as Journal FLAGSHIP of ISE

Social Media

Facebook for Division 2 managed by Felipe Conzuelo

ISE Social Media Officers are available too to share info via ISE channels (ISE Linkedin)