



I N T E M A

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MAR DEL PLATA – ARGENTINA

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Mar del Plata, July 24<sup>th</sup> 2023.

International Society of Electrochemistry  
Annual ISE report of Argentina – 2023

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### **Membership**

- Currently there are 44 ISE members in Argentina (July 2023), a significant increase from the 17 members reported in 2022, a consequence of the organization of the 34<sup>th</sup> ISE Topical Meeting (TM) that was held in Mar del Plata, Argentina last March. We are actively promoting people to stay as active member in the society and not only become a member for the meetings.
- **Activities in the period**
  - a) The 34<sup>th</sup> ISE Topical Meeting was held in Mar del Plata, Argentina from 19<sup>th</sup> to 22<sup>nd</sup> March 2023. The topic of the meeting was “Electrochemistry: reaching out the society” and it was centred in three main axes: *Electrochemistry and Health, Clean Energy, and Materials’ Degradation*. The meeting was sponsored by Division 4 (Electrochemical Materials Science) and Division 5 (Electrochemical Process Engineering and Technology). The discussion sessions involved three full days from Monday 20 to Wednesday 22. The registration and welcome cocktail took place on Sunday 19. On Monday 20, the opening ceremony began with a speech given by the conference chair (Dr. S. Ceré), describing the general lines of the meeting and welcoming all the participants. These initial words were followed by a presentation given by Dr. A. Bolzán introducing the mission and the general activities of the ISE. The ceremony was closed with the welcome words of Mr. Alfredo Lazzaretti, Head of the National University of Mar del Plata.

Three keynote lectures covered the main themes of the meeting. They were delivered by Dr. Ingrid Milošev (*Conversion Coatings based on Cerium and Zirconium for Corrosion Protection of Aluminium Alloys*), Dr. Sviatlana Lamaka (*Degradation mechanisms of bioabsorbable metals: (dis)similarities of the metal-electrolyte interface during in vitro degradation of Mg-, Zn- and Fe-alloys*) and Dr. Khalil Amin (*Advances in lithium-ion battery and beyond for enabling mass electrification of vehicles*). Eleven invited lectures, 60 orals and 70 poster regular contributions were also presented. Two Poster Prizes and eight free registration waivers for students were granted by Division 5. A Special Issue of *Electrochimica Acta* will be dedicated to the Topical Meeting. The success of the meeting was expressed through the participation 150 people from more than 30 countries, mainly from America and Europe and the presence of six international exhibitors. The local interest on the meeting was also expressed by the sponsorship provided by the Agencia Nacional de Promoción de la Investigación, el Desarrollo Tecnológico y la Innovación from Argentina, The National University of Mar del Plata and Y-TEC Tecnología, the most important research and development company for the energy industry in Argentina, and by the declaration of the Mar del Plata Tourism Board considering the meeting as of “cultural and touristic interest”. The meeting resulted in a great occasion to exchange ideas, discuss problems of mutual interest, discover novel opportunities, reacquaint with colleagues, meet new ones, begin or continue scientific collaborations, and broaden knowledge in our community.

b) S Cere, participates as Vice chair of Division 4. Electrochemical Materials Science.



Dr. Eng. Silvia Ceré  
División Electroquímica Aplicada.  
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## **International Society of Electrochemistry**

### **Annual ISE report for Australia/New Zealand region – 2022**

#### **Membership**

There are currently 106 members in total from the region, 89 members from Australia and 17 from NZ. This is an increase of 33 members from the previous year, most likely because of a Topical Meeting being held in the region in 2023.

#### **Fellows**

Six of the members from the Region in good standing are ISE Fellows, including Profs Alan Bond, Maria Forsyth, Justin Gooding, Douglas MacFarlane, Guoxiu Wang, and Nick Birbilis.

#### **ISE Awards**

Two members from our region was awarded a prestigious prize in the ISE Awards in 2022:

- Tajima Prize – Debbie Silvester-Dean
- Brian Conway Prize for Physical Electrochemistry – Scott Donne

#### **ISE Activities**

During 2022, organization took place for the 35<sup>th</sup> Topical Meeting of the ISE, which was held in the Gold Coast in May 2023. Full details of the Topical Meeting will be included in next year's update, since this report only covers 2022 activities.

#### **Other Regional Electrochemistry Activities**

##### Our first State-based meeting was held in December 2022

The 1<sup>st</sup> Victorian Electrochemistry Symposium (VES1) took place on December 9th, 2022, at Deakin University, Melbourne. The symposium was focused on PhD students and attracted approximately 80 delegates. VES featured 14 oral presentations, including two keynote speakers: Professor Gillian R. Goward from McMaster University (international academic speaker) and a local industry speaker from Nutromics. Additionally, 12 talks were given by PhD students. The event also included 13 poster presentations, with a high turnout of around 18 senior researchers, including Emeritus Professors Alan Bond and Prof Maria Forsyth, who attended to support VES1. The symposium had 10 Early-to-Mid-Career Researcher (EMCR) delegates who served as judges for the best oral and poster presentations, and eight awards were presented to outstanding PhD speakers.

##### Metrohm-EDRACI Young Electrochemist Awards

Metrohm are continuing to support three Higher Degree by Research (HDR) student and three PostDoc/Early Career Researcher (ECR) Metrohm-EDRACI Young Electrochemist awards each year since the inception of the awards in 2020. The EDRACI committee judge the applications and recommend the winners, which are announced by Metrohm.

The 2022 winners were announced in December 2022.

##### **Higher degree by research**

- Luke Gundry (Monash University)



- Mattia Belotti (Curtin University)
- Shiwei Tao (University of Queensland)

**Post-doctoral research**

- Dmitrii Rakov (University of Queensland)
- Hoang-Long Du (Monash University)
- Xiaomin Xu (Curtin University)

The winners gave a presentation on their research at the prize ceremony at the beginning of 2023. Overall winners were Shiwei Tao (UQ) and Xiaomin Xu (Curtin). Congratulations to all winners and finalists! Metrohm and EDRACI will continue to reward outstanding young electrochemists in the Australia/New Zealand (ANZ) region every year for the foreseeable future. These awards provide outstanding early career scientists the opportunity to gain wider recognition of their work (and a cash prize).

Yours sincerely,

A handwritten signature in cursive script, appearing to read 'Debbie Silvester-Dean'.

Debbie Silvester-Dean  
Professor  
Curtin University, Perth, Western Australia

Innsbruck, 22.08.2022

**Report of the ISE Regional Representative for Austria 2023****Membership**

The number of Austrian ISE members has increased to 36 at the time of this report. Most of them are active at the major universities and the largest federal research centers.

**Activities**

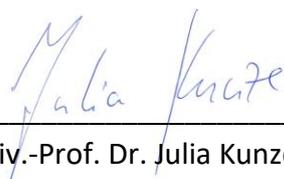
The COAST conference 2023 was organized by CEST (Centre for Electrochemical Surface Technology) in Vienna. Many interesting electrochemistry contributions have been presented during this meeting.

A large number of talks and posters on electrochemistry were presented at the DPG Spring Meeting (26.3.-31.3.2023) in Dresden, Germany. Numerous participants from Austria came to this conference that more and more focuses towards interface and electrochemistry research.

The first round of FWF Clusters of Excellence (CoE) was awarded on the 20<sup>th</sup> of March, 2023. The CoE "Materials for Energy Conversion and Storage, MECS (<http://coe-mecs.at/WP/about-the-project/>)" will focus on electro- and photocatalysis for the generation of green H<sub>2</sub>, chemicals, and fuels.

The 7<sup>th</sup> GÖCH Symposium "Physical Chemistry and Electrochemistry in Austria" will take place in September (28.-29.09.2023) at the TU Vienna.

Yours sincerely,



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Univ.-Prof. Dr. Julia Kunze-Liebhäuser

## **Annual Report 2022 – Belgian section of the International Society of Electrochemistry**

Like in many other countries, 2022 has seen in Belgium the return of on site scientific events. With respect to electrochemistry, two large international conferences (both supported by the ISE) have taken place.

### **- XXVIITH INTERNATIONAL SYMPOSIUM ON BIOELECTROCHEMISTRY AND BIOENERGETICS – BES2022**

Antwerp, Belgium, April 3-7, 2022

The aim of the symposium is to provide a forum on all the various aspects of bioelectrochemistry and bioenergetics, to disseminate knowledge and promote exchanges on recent findings and collaborations. Modern electrochemistry is a discipline at the interface between chemistry, physics and biology. The symposium covers the breadth and depth of modern interdisciplinary bio-electrochemistry, with lectures and poster presentations falling into 6 main thematic panels:

- S1: BIO(INSPIRED) SENSORS & DIAGNOSTICS
- S2: MICROBIAL ELECTROCHEMICAL TECHNOLOGIES AND ELECTRON TRANSPORT SYSTEM
- S3: BIO-ELECTROSYNTHESIS
- S4: ELECTROPORATION & BIOMEMBRANE ELECTROCHEMISTRY
- S5: NANO TECHNOLOGIES & ARCHITECTURES FOR BIO-ELECTROCHEMISTRY
- S6: BIO(PHOTO)ELECTROCHEMISTRY & BIO-ENERGETICS

#### *ORGANISING COMMITTEE*

Karolien De Wael (Antwerp University, Belgium), Lo Gorton (Lund University, Sweden), Fred Lisdat (University of Applied Sciences Wildau, Germany), Thomas Doneux (ULB, Belgium), Deepak Pant (VITO, Belgium).

#### *LOCAL ORGANISING COMMITTEE*

Karolien De Wael, Olivier Voet, Rocío Cánovas Martínez, Elise Daems, Amelia Langley, Marc Parrilla Pons, Andrea Marchetti.

#### *PARTICIPANTS AND CONTRIBUTIONS*

168 participants from 21 different countries. 73 PhD students and young researchers, 48 postdoctoral researchers and 47 professors. 72 lectures (of which 5 plenary, 10 keynote and 8 invited) and 49 poster presentations. 51 male presenters and 70 female presenters in total.

### **- JOURNÉES D'ELECTROCHIMIE 2022**

Mons, Belgium, July 4-7, 2022

The “Journées d'Electrochimie” is a biannual meeting organised by the Electrochemistry subdivision of the Société Chimique de France. It gathers researchers in electrochemistry from the french speaking countries to discuss the most recent topics in the field. The first edition of the Journées d'Electrochimie was held in 1981 in Brussels and is back in Belgium in 2022, in Mons. The conference was initially planned in 2021 to celebrate its 40th birthday, but has been postponed by one year due to the sanitary crisis. The communications were delivered either in French or in English at the participant's choice.

The Journées d'Electrochimie cover the entire field of electrochemistry and are organised along 7 topics:

T1 : Photo and spectro-electrochemistry

T2 : Molecular electrochemistry, electrosynthesis, electrocatalysis

T3 : Electroanalysis, sensors, lab-on-a-chip

T4 : Energy: batteries, supercapacitors, fuel cells

T5 : Bioelectrochemistry, biosensors, biofuel cells

T6 : Electrochemical engineering : electrolytes, recycling, electrometallurgy

T7 : Corrosion, coatings, surface treatments

#### ORGANISING COMMITTEE

Bertrand BLANKERT (Université de Mons, Co-Chair), Thomas DONEUX (Université libre de Bruxelles, Co-Chair), Nathalie JOB (Université de Liège), Roberto LAZZARONI (Université de Mons), Zineb MEKHALIF (Université de Namur), Marjorie OLIVIER (Université de Mons), Jon USTARROZ (Université libre de Bruxelles), Alexandru VLAD (Université Catholique de Louvain)

#### *PARTICIPANTS AND CONTRIBUTIONS*

A total number of 146 communications have been delivered, comprising 3 plenary lectures (1 h), 12 invited keynote lectures (40 minutes), 81 selected oral contributions (20 minutes) and 50 poster communications. These have been delivered in 30 different sessions, each chaired by a different person.



Prof. DSc Vessela Tsakova  
Regional representative of Bulgaria

Sofia, 11.09.2023

### ISE Annual report 2023, Bulgaria

**Membership:** 18 ISE members according to the ISE web-site.

#### Participation in the organization of ISE Meetings:

74<sup>th</sup> Annual Meeting, Lyon

*Bridging Scientific Disciplines to address the World's Challenges*

Evelina Slavcheva - co-organizer of Symposium 6a *Fuel cells, electrolysis and electrofuel synthesis*

**Participation in the 74<sup>th</sup> Annual ISE meeting:** two oral contributions and three posters presented in various symposia.

#### Regional electrochemistry activities:

National conference *Electrochemical systems for clean and sustainable energy*, 29 May-1 June 2023, Troyan, Bulgaria, organized by five national academic institutions (Institute of Electrochemistry and Energy systems, Institute of General and Inorganic Chemistry, Institute of Engineering Chemistry, and Innovation Center of Bulgarian Academy of Sciences as well as South-West University, Blagoevgrad).

The program was devoted to four main subjects – Batteries and supercapacitors, Hydrogen and fuel cells, Bioelectrochemical energy systems, and Materials for clean energy. It included five plenary lectures, 29 oral contributions and 15 poster presentations. A number of young researchers were involved in the program.

/Prof. DSc Vessela Tsakova/

September 2023

ISE Annual Report Meeting 2023 – Canada

Sponsoring Workshop on Scanning Electrochemical Microscopy and Related Techniques  
<https://sites.google.com/view/secmworkshop/home>

ISE Member Clara Santato is among the four organizers of the Symposium D4 UNESCO Chair in Green and Sustainable Electronics/Eco-Design, Toxicology, Green Chemistry, Biosourced Materials, and E-Waste Management at the XXXI IMRC (Cancun, Mexico, August 2023)

The next workshop organized in the context of the pan Canadian CREATE initiative in Sustainable Electronics and their Powering Elements (**Collaborative Research and Training Experience Program in Sustainable Electronics and Eco-Design, CREATE SEED, <https://www.polymtl.ca/create-seed/en>, PI Santato**) will be hopefully co-sponsored by ISE.

The regional representative, Santato, was awarded a UNESCO Chair in Green and Sustainable electronics in January 2023. She wishes to explore possible synergies ISE UNESCO.

Santato is establishing the working group in Sustainable Electronics at the International Organization for Chemical Sciences in Development (IOCD, [http://www.iocd.org/v2\\_index.shtml](http://www.iocd.org/v2_index.shtml)of the symposium The Carbon Superfamily) and plan, with the support of ISE, to establish research and training activities on recycling materials from spent Li-ion batteries.



# R u đ e r   B o š k o v i ć   I n s t i t u t e

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Dr. Nadica Ivošević DeNardis  
Division for Marine and Environmental Research  
Ruđer Bošković Institute, Zagreb, Croatia  
E-mail: ivosevic@irb.hr

Zagreb, August 10, 2023.

## ISE ANNUAL REPORT 2022-2023 (Croatia)

### Memberships

The current number of members of ISE in Croatia is 24, while last year there were 26. We will continue to attract new members to the ISE community.

### Activities

Croatian ISE members have participated in: ISE Topical Meeting, Gold Coast, Australia, 2023, ISE Regional Meeting, Prague, Czech Republic, 2022, Eurocorr, Berlin, Germany, 2022, 242<sup>nd</sup> ECS Meeting, Atlanta, GA, USA, 2022, European Geosciences Union, Viena, Austria, 2023, 2<sup>nd</sup> International Student GREEN Conference Osijek, Croatia 2022, 4<sup>th</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, 2022, 1<sup>st</sup> Central and Eastern European Conference on Physical Chemistry and Materials Science, Split, Croatia, 2022, Supramolecular Chemistry, Zagreb, Croatia, 2022, 84<sup>th</sup> Prague Meeting on Macromolecules, Prague, Czech Republic, 2022, 28<sup>th</sup> Croatian Meeting of Chemists and Chemical Engineers, Rovinj, Croatia, 2023, 2<sup>nd</sup> International Conference on Applications of Radiation Science and Technology, Viena, Austria, 2022, 32<sup>nd</sup> Miller Conference on Radiation Chemistry, Corsica, France, 2023, ASLO Aquatic Sciences Meeting, Palma de Mallorca, Spain, 2023, XVI International Estuarine Biogeochemistry Symposium, Šibenik, Croatia, 2023, International GEOTRACES Summer School, Bremenhaven, Germany, 2022, 4<sup>th</sup> Croatian Microscopy Congress with International Participation, Zagreb, Croatia, 2022, International Conferences on Science and Technology, Natural Science and Technology, Budva, Montenegro, 2022.

Angela Kapitanović, PhD student at the Faculty of Chemical Engineering and Technology, University of Zagreb, Croatia, and Saranda Bakija Alempijević, PhD student at Ruđer Bošković Institute, Croatia, organized the 12<sup>th</sup> ISE Satellite Student Regional Symposium on Electrochemistry on June 30, 2023, in Zagreb, Croatia. The symposium was held in a hybrid format that allowed both on-site participation at the Faculty of Chemical Engineering and Technology in Zagreb and online participation. The goal of the symposium was to provide an opportunity for PhD and graduate students to present their work and research in the various fields of electrochemistry and electrochemical engineering. The symposium was attended by 22 PhD and MSc students from Croatia, Czech Republic, Slovenia and Serbia. The oral presentations covered a wide range of electrochemical topics, including electrochemistry of materials for various purposes, hydrogen evolution, corrosion, environmental and analytical chemistry. At the end of the symposium, participants voted anonymously on the best presentation. Sara Šariri from the Ruđer Bošković Institute in Zagreb took first place, while Tatiana Galicová from the Institute of Biophysics of the Czech Academy of Sciences in Brno and Miha Hotko from the National Institute of Chemistry in Ljubljana shared second place. The Book of Abstracts of the 12<sup>th</sup> ISE Satellite Student Regional Symposium on Electrochemistry (ISBN 978-953-6894-84-0) has been prepared and is available at the following link: [https://www.hdki.hr/images/50013054/12th\\_ISE-SSRSE\\_2024\\_Book\\_of\\_Abstracts.pdf](https://www.hdki.hr/images/50013054/12th_ISE-SSRSE_2024_Book_of_Abstracts.pdf). This meeting was supported by the International Society of Electrochemistry.

### **Promotion of Electrochemistry**

Our members (Marijana Kraljić Roković, Jozefina Katić and Grgur Mihalinec) participated in the Science Week (theme: Smart Future) with the workshop Hydrogen in the Palm of Your Hand. The aim of this workshop was to bring science and technology closer to children and young people in an interactive and accessible way. The Science Week was organized by the MUZZA Association in Zagreb from 19 to 21 May 2023.

Marijana Kraljić Roković, Jozefina Katić and Ivana Šoić were involved in the promotion of electrochemistry and electrochemical techniques at the Faculty of Chemical Engineering and Technology University of Zagreb in 2022/2023 as part of the CeSaR project at the Faculty of Chemical Engineering and Technology (<https://cesar-fkit.eu/tim>). The aim of this project was to improve the practical skills of students in various areas related to the field of electrochemistry.

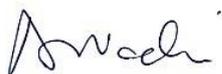
In February 2023, some of the members actively participated in the open days organized by the Faculty of Chemical Engineering and Technology University of Zagreb, where the electrochemistry laboratory was presented to the public and future students.

### **Investment in electrochemical equipment**

As part of the EU structural project “Open Scientific Infrastructure Platforms for Innovative Applications in Economy and Society” (O- ZIP), eight new electrochemical instruments and an electrochemical AFM were installed at the Ruđer Bošković Institute in Zagreb, Croatia. Additional electrochemical instruments were installed at University of Osijek and the Institute of Immunology in Zagreb.

### **Future Activities**

36<sup>th</sup> ISE Topical Meeting-Modern Electrochemical Aspects of Marine and Environmental Research in the Age of New Technologies will be held May 26-29, 2024 in Šibenik, Croatia (organizers: Marija Marguš, Slađana Strmečki Kos, Irena Ciglencečki Jušić).



Nadica Ivošević DeNardis  
ISE Regional Representative of Croatia

July 21<sup>th</sup>, 2023

## **REPORT 2022 of the ISE Regional Representative – Czech Republic**

### **Membership**

The current status of the membership from the Czech Republic is 43 members (according to the member directory), thus showing an interannual decrease of 3. Since 2012, the number of ISE members from the Czech Republic was typically oscillating around 45; in the year 2020 reached 55 - a new historical maximum; in the years 2015 and 2018 reached 52. Most of them operate simultaneously in three divisions (56%) (but not more than three divisions), one division (23%), or two divisions (16%). Most members are active in "Division 1, Analytical Electrochemistry" (49%), "Division 1, Analytical Electrochemistry" (49%), "Division 4, Electrochemical Materials Science", "Division 6, Molecular Electrochemistry", "Division 7, Physical Electrochemistry" (37% in each), and in "Division 2, Bioelectrochemistry" (10%).

Ph.D.-students have been an important target group for 2022. Recruitment of new ISE members and/or membership renewal has naturally been attempted during national conferences or international conferences organized in the Czech Republic, particularly those sponsored by the ISE (see below). However, the number of conferences held and the recruitment of ISE members did not correspond to our expectations.

### **Activities**

Main activities in 2022 have been connected with the organizing of two ISE-sponsored international electrochemical meetings:

#### **Modern Electrochemical Methods XLI (2022)**

22 - 26 June 2022, Jetřichovice (Near Děčín), Czech Republic (Div 6)

**Contact:** Tomáš Navrátil

#### **4<sup>th</sup> Cross-Border Seminar on Electroanalytical Chemistry**

11 - 13 April 2022, Prague, Czech Republic (Div 1)

**Contact:** Jiří Barek, Frank-Michael Matysik

Moreover, the 1st Regional Meeting of the International Society of Electrochemistry was held in Prague, Czech Republic, from 15<sup>th</sup> to 19<sup>th</sup>, 2022. Many Czech ISE members participated in the realization of this event.

These meetings provided/will provide a good opportunity for students to learn more about the ISE society, as well as membership advantages and benefits.

At this moment, we already know that in 2023, ISE will sponsor at least three international conferences (Modern Electrochemical Methods XLII; 5<sup>th</sup> Cross-Border Seminar on Electroanalytical Chemistry, and Advanced Batteries; Accumulators and Fuel Cells).

ISE activities (forthcoming meetings, membership issues, etc.) have been announced by the RR as well as other ISE members not only at the above-sponsored meetings but also at other meetings and seminars organized by the Czech electrochemistry and analytical chemistry community. It can be stated that in the last two to three years, there has been an intensification of cooperation with the Czech Chemical Society.

#### **Prepared by:**

Tomáš Navrátil  
ISE Regional Representative  
Czech Republic

## Annual report on the activities of Estonia

23/08/23

Dear Prof. Shelley D Minteer and Doc. Dr. Petr Krtil,

With the following, I would like to report the activities in Estonia. Estonia has a supportive community of electrochemists, currently, there are 25 active ISE members.

Estonian members are represented in all 7 ISE divisions. Divisions with the highest interest are:

Division 3: Electrochemical Energy Conversion and Storage (19 members)

Division 4: Electrochemical Materials Science (19 members)

### Activities

Most of the activities related to electrochemistry in Estonia are performed in universities, research institutes, the public sector, and local companies. Popularity of electrochemistry related topics has been increasing due to the Green Deal and other sustainable development Goals in EU and local strategies. Therefore, electrochemists are included in many private and public sector activities. Also, there is a new and evolving trend in Estonia, where (new) local startups and companies in the energy sector increasingly consult and hire ISE members.

Foundation of Hydrogen Valley Estonia and Estonian Hydrogen Days is a yearly event and is popularizing science and entrepreneurship in this field.

Graduate School of Functional Materials and Technologies (GSFMT) conference, spring, and summer school. ISE members are always included as keynote lecturers at the GSFMT activities, where ISE members present their latest work.

Participation in ISE (sponsored) meetings. Estonian ISE members are interested in participating and actively taking part in ISE annual and topical meetings.

Sincerely,

Ph.D. Liis Siinor,

Research Fellow of Physical Chemistry

Institute of Chemistry

University of Tartu

Ravila 14a, 50411 Tartu

Estonia



**Dr Olivier BURIEZ**

CNRS Research Director

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## ISE ANNUAL REPORT 2023 – FRANCE

### ISE Membership

The number of ISE active members within France is currently 210, confirming a slight decline on previous years (235 in 2018; 220 in 2020) despite the organization of the ISE Annual Meeting in Lyon.

### Activities

Following the covid-19 crisis, face-to-face conferences are back on the agenda. The following conferences were sponsored this year.

**1- “10th International Conference on Electrochemistry in Nanosciences: Electrochemistry for Nano & Nano for Electrochemistry” (ElecNano10) - (<http://elecnano.univ-paris-diderot.fr>)**

**Dates:** 10-12 May 2023

**Location:** Paris

**Organizers:** Jean Christophe Lacroix, Pascal Martin, Frederic Lafolet, Jalal Ghilane, Sarra Gam Derouich, Roméo Bonnet, Xioanan Sun, Steeve Reisberg, Vincent Vivier, Corinne Lagrost.

In 2023, particular emphasis was placed on the considerable interest of electrochemistry for systems characterization at the nanoscale (nanomaterials & biological objects, SECM and related techniques) and surface modification (nanopatterning, nanostructuration), as well as on the exploitation of nanomaterials and nanotechnologies in electrochemical applications ((bio)-sensors, energy conversion and storage, nanoelectronics, etc...).

### Invited Plenary Speakers:

- Marc T. M. Koper, University of Leiden, The Netherlands
- Philippe Marcus, IRCP – PSL University, France
- Petra Hellwig, CMC - Université de Strasbourg, France
- Alberto Escarpa, Dept of Analytical Chemistry, Physical Chemistry, and Chemical Engineering, University of Alcalá, Spain
- Alexander Kuhn (CNRS Silver Medal 2023), ISM - University of Bordeaux

## 2- “International Symposium on Inorganic and Environmental Materials”

(<https://isiem2023.sciencesconf.org/>)

**Dates:** 19-23 June 2023

**Location:** Montpellier

**Organizers:** Magali Gary-Bobo, Sara Cavalière, Jérôme Long, Armelle Ouali, Fabrice Salles, Nathalie Tanchoux, Cyrielle Rey, Julien Cambedouzou, Umit Demirci, Christelle Floutier, Matthieu Rivallin, Vincent Rouessac, Chrystelle Salameh, Claire Longuet.

In 2023, a specific focus on the energy field was organized on attractive topics of interest like batteries, supercaps, fuel cells, electrocatalysis. 203 participants attended the symposium.

### Invited Plenary Speakers:

- Patricia Horcajada, IMDEA Energy Madrid, Spain
- Kiyoshi Itatani, Sophia Univ, Japan
- Kiyoshi Kanamura, Tokyo Metropolitan Univ, Japan
- Karine Philippot, LCC CNRS Toulouse, France

## 3- 13<sup>th</sup> European Symposium on Electrochemical Engineering (13<sup>th</sup> ESEE2023) –

(<https://13thesee2023.sciencesconf.org/>)

**Dates:** 26-29 June 2023

**Location:** Toulouse

**Organizer:** Théo Tzedakis

Beyond the traditional core of the discipline “Design/optimize and model electrochemical processes and reactors”, Electrochemical Engineering is considered as a key to overcome current societal issues on Energy- Environment- Raw Materials-Pollution/ Wastes Treatment, etc...

### Invited Plenary Speakers:

- Lynden A. Archer (Cornell Institut, NY, USA)
- Davide Clematis, Università degli Studi di Genova, Italy

## Future Events

### 1- “2023 workshop on bidirectional catalysis, from molecular machines to enzymes” (<https://redox-shields.org/2023-workshop>)

**Dates:** 11-12 September 2023

**Location:** Paris (initially scheduled in Marseille, the Workshop has been relocated to Paris)

**Organizers:** Christophe Léger (BIP, CNRS/AMU, Marseille); Vincent Fourmond (BIP, CNRS/AMU, Marseille); Jalila Simaan (ISM2, CNRS/AMU, Marseille); Nicolas Plumeré (Technical University of Munich).

In 2023, the conference will focus on the modelling and mechanistic questions related to bidirectional catalysis including several important topics such as molecular motors, homogeneous catalysis or redox reactions, electrocatalysis, as well as biological catalysis of redox reactions.

### Invited Speakers:

- **Motors** : Rudolph A. Marcus (online) (California Institute of Technology, USA); Sándor Volkán-Kacsó (Azusa Pacific University, USA); Raymond Astumian (University of Maine, USA); Hendrik Dietz (TU Munich, G).
- **Synthetic homogeneous catalysts of redox reactions**: Cyrille Costentin (Université Grenoble Alpes, F); Jenny Y. Yang (University of California, Irvine, USA); Eric Wiedner (PNNL, WA, USA); Louise A. Berben (The University of California, Davis).
- **Electrocatalysis** : Marc Koper (Leiden University, NL) ; Jens K. Nørskov (Technical University of Denmark); Hideshi Ooka (RIKEN CSRS, Japan).
- **Redox enzymes** : Anne K. Jones (Arizona State University, USA) ; Julea Butt (Unif of East Anglia in Norwich, UK); Steffen Hardt (Technical University Munich, G); Judy Hirst (MRC MBU, University of Cambridge, UK).

July 18, 2023  
Dr Olivier BURIEZ  
ISE Regional Representative for France (2023-2025, 1<sup>st</sup> term)  
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Karlsruhe Institute of Technology

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## IAM - ET

Institute for Applied Materials  
- Electrochemical Technologies

Head:  
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our reference:  
date: July 11, 2023

### ISE Report 2022-23; Region Germany

#### Membership:

Slightly downward trend: 288 in 2023 (295 in 2022, 289 in 2021, 290 in 2020, 283 in 2019, 267 in 2018)

#### Activities in ISE:

- Annual Meeting 2025 is being organized by Germany (chairs: Wittstock, Krewer, local organizer: Waldvogel)
- Katharina Krischer became President 2023-2024; Sonia Dsoke became Chair Elect of Division 3. Katrin Domke became Chair of Division 7,
- German members were active in organising the conference (Krischer, Wittstock) and the symposia at the ISE annual meetings in 2022 and 2023 (S9 coordination Vidakovic-Koch, S8 Mikhail Zheludkevich, ) and in El. Acta special issues.
- One award at ISE goes to Germany in 2023: Mira Todorova (Kuznetsov-Prize)

#### ISE-Sponsored meetings

- 4<sup>th</sup> European BioSensor Symposium 2023; organiser: Michael Schöning 2023
- Symposium on Insights into Gas Diffusion Electrodes; organisers: Thomas Turek et al. autumn 2022
- GDCh Electrochemistry, organisers: Peter Strasser, Beatriz Roldán Cuenya et al. autumn 2022
- The regional representative has not been actively advertising ISE-sponsoring of meetings due to issues with receiving the funding from ISE in the past.

#### General situation in Germany:

Continued high research funding for batteries; significant rise in funding for water electrolysis, with many people newly entering the field. Significant activities beginning also in electrosynthesis of chemicals. Further, many companies investing in these three areas. As a result, researchers with electrochemistry knowledge are lacking and in high demand.

Yours sincerely,

Prof. Dr.-Ing. Ulrike Krewer

Karlsruhe Institute of Technology (KIT)  
Kaiserstr. 12  
76131 Karlsruhe, Germany

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Report of the ISE Regional Representative – Greece prepared for the Meeting of the ISE Regional Representatives to be held on September 4<sup>th</sup>, 2023.

## 1. Membership

- The number of ISE members in Greece for the year 2023 are 29 members. Their preferences in the activities of the different ISE Divisions are as follows (1 of them have not expressed specific preferences):
  - Division 1, Analytical Electrochemistry (5)
  - Division 2, Bioelectrochemistry (1)
  - Division 3, Electrochemical Energy Conversion and Storage (20)
  - Division 4, Electrochemical Materials Science (20)
  - Division 5, Electrochemical Process Engineering and Technology (14)
  - Division 6, Molecular Electrochemistry (6)
  - Division 7, Physical Electrochemistry (12)
- Efforts to recruit new members continue, especially targeting young scientists especially postdocs and PhD candidates.

## 2. Activities

- Professor S. Sotiropoulos (Aristotle University of Thessaloniki, Greece) continued acting as one of the Editors of *Electrochimica Acta*.
- Professor C. G. Vayenas (University of Patras, Greece), ISE Fellow, continued acting as one of the Editors of *Modern Aspects of Electrochemistry*, Patras, Greece.
- The following conference has been organized by FORTH Institute of Chemical Engineering Sciences and the University of Patras: **CARISMA2023 “7th International Conference on Proton Exchange Membrane Fuel Cells & Electrolysis: Materials, Systems & Applications”**. The CARISMA conference series is dedicated to the challenges in the development of materials, membrane-electrode-assemblies, components and systems for low and high temperature polymer electrolyte membrane (PEM) fuel cells and electrolysis. The purpose of the conference is to present important issues and recent results, but also to discuss the solutions sought internationally regarding materials development, operation and process optimization, material and device degradation, review of important issues and market perspectives of technologies. Conference web site: <http://carisma2023.iceht.forth.gr/>. Location: Conference center of the Ionian Blue Hotel Bungalows & Spa Resort, which is located in Nikiana, Lefkada island, Greece, from 1 – 5 October 2023.

A handwritten signature in blue ink, appearing to read 'All'.

Dr. Antonis Karantonis  
Regional Representative – Greece  
24 July 2023



UNIVERSIDAD  
DE SANTIAGO  
DE CHILE



Laboratorio de Electrocatálisis



Santiago, August 28th, 2023  
Ingrid Ponce Hormazábal  
Molecular Electronics and  
Electrocatalysis Lab  
Universidad de Santiago de Chile  
ingrid.ponce@usach.cl

## International Society of Electrochemistry

### Annual ISE report of Chile – 2023

1. Currently, there are 25 ISE members in Chile (September 2023).

#### ISE Sponsorship:

1. **ISE-Meeting:** The 33rd Topical Meeting of the International Society of Electrochemistry was held in Santiago, Chile, from 27 to 30 November 2022. Topics: The Challenges in Molecular Electrochemistry and Surface Reactivity, Green H<sub>2</sub> production, Fuel Cell technology, Photovoltaics/biophotovoltaics, Experimental, Theoretical, and Computational Advances in Electrochemistry and Electrocatalysis. <https://topical33.ise-online.org/>. A special issue of the Electrochimica Acta Journal "Electrocatalysts and Surfaces" was held from this event, Edited by F. Tasca and I. Ponce. <https://www.sciencedirect.com/journal/electrochimica-acta/special-issue/10Z1FFN2W4N>
2. **ISE-Chile Meeting:** RR Chile will request Sponsorship from ISE to hold the meeting of Chilean ISE partners to present the new regional representative of Chile.

Dra. Ingrid Ponce Hormazábal  
ISE Regional Representative of Chile

## Annual report of Chinese Society of Electrochemistry (2023)

18 August, 2023

### 1. Membership

The current active ISE members in China mainland is **210**. We are strongly encouraging Chinese scientists, researchers and students to join as ISE member.

### 2. Meetings

- (1) ISE China regional group attended the 73<sup>rd</sup> ISE Annual Meeting (Sep 12-16, 2022), The meeting was held online affected by COVID-19. Prof. Jun Chen, member of the Chinese Academy of Sciences, member of the Academy of Sciences for the Developing World, and professor of Nankai University, made a one-hour presentation entitled "Organic Electrode Materials for Rechargeable Lithium Batteries and Beyond". The meeting was originally scheduled to be hosted by Xiamen University, but due to the impact of the epidemic, it was changed to an online event. Prof. Bin Ren works in the Organizing Committee and up to 14 Chinese electrochemists are serving as organizers in 9 symposiums for this meeting.
- (2) ISE China regional group organized the **21<sup>th</sup> National Electrochemistry Conference of China**, which is delayed due to COVID-19. From May 22 to 25 in 2023, the meeting was held in Dalian hosted by Dalian University of Technology. The conference is themed of "electrochemistry promotes carbon neutrality and high-quality development". More than 15 member of the Chinese Academy of Sciences, 3500 participants from universities, institutes and industry attended the meeting. There were a total of 19 sessions, 1 special lecture, 2 special forums, a total of more than 180 keynote presentations, more than 450 invited presentations, more than 330 oral presentations and more than 600 wall papers, with topics covering different fields of electrochemistry. For the first time, a forum for female electrochemists was set up, and a special Dalian Hydrogen Industry Summit Forum was organized.
- (3) ISE China regional group organized the **4<sup>th</sup> (2023) Electrocatalysis and Electrochemical Synthesis International Conference**. The conference was held from April 7 to 9, 2023 in Changsha. The meeting was co-sponsored by the Electrochemistry Committee of the Chinese Chemical Society and Hunan University, and organized by the School of Chemistry and Chemical Engineering of Hunan University. More than 1,000 experts and scholars, including academicians of Chinese Academy of Sciences participated in the meeting to share the innovative achievements and cutting-edge technologies of electrocatalysis and electrosynthesis

research, and to discuss the current status of the scientific research and the development prospect of electrocatalysis and electrosynthesis.

- (4) ISE China regional group is organized two symposiums of “Advanced Chemical Power Sources” and “Basic Electrochemistry” on **the 33rd Annual Meeting of the Chinese Chemical Society** held in Qingdao from June 17 to 20, 2023.

### 3. Activities

- (1) By the end of September 2023, the renewal of the Chinese Society of Electrochemistry was completed, with Prof. Wei Xing (Changchun Institute of Applied Chemistry, CAS) elected as Director and Prof. Lin Zhuang (Wuhan University), Prof. Yuguo Guo (Institute of Chemistry, CAS), Prof. Bin Ren (Xiamen University) , Prof. Zidong Wei ( Chongqing University ) and Prof. Yan Xiang ( Beihang University) elected as vice Director.

- (2) Chinese Scientists actively serves in ISE activities.

Prof. Zhong-Qun Tian at Xiamen University as Immediate Past President of ISE.

Profs. Yong-Yao Xia, Guo-Bao Xu and Bin Ren as Chair or Vice Chair in three different division of ISE committee.

Prof. Shi-Gang Sun and Prof. Jiang-Ping Tu as editors of *Electrochimica Acta*, Prof. Yan-Xia Chen and Prof. Lin Zhuang in Advisory Board of *Electrochimica Acta*.

## ISE Ireland Regional Representative Annual Report (2022-2023)

### Members

The *number of ISE members in Ireland is 39.*

- Division 1, Analytical Chemistry still has the largest affiliation with 18 members.
- Division 2, Bioelectrochemistry, has 16 members affiliated.
- Division 3, Electrochemical Energy Conversion And Storage, has 12 members affiliated.
- Division 4, Electrochemical Materials Science, has 14 members affiliated.
- Division 5, Electrochemical Process Engineering And Technology, has 3 members affiliated.
- Division 6, Molecular Electrochemistry, has 9 members affiliated.
- Division 7, Physical Electrochemistry, has 14 members affiliated.

### Irish Participation at the 1<sup>st</sup> ISE Regional Meeting in Prague, Czech Republic

Irish based electrochemists presented 6 oral presentations (all from participants from the University of Limerick) and 4 poster presentations (2 from the University of Limerick and 2 from University College Dublin).

### Irish Participation at the 74<sup>th</sup> Annual ISE Meeting in Lyon, France

Irish based electrochemists are presenting 9 oral presentations (5 from the University of Limerick, 2 from University College Dublin, 1 from the Tyndall National Institute, and 1 from the Technological University of the Shannon).

Irish based electrochemists are further presenting 7 poster presentations (4 from the University of Limerick, 2 from Maynooth University and 1 from the University of Galway).

### Activities.

The electrochemistry community in Ireland continues to focus on electrochemical sensing, energy, nanotechnology, and materials research. The 5<sup>th</sup> annual Student meeting was held at Queen's University Belfast (QUB) in November 2022. The report on this event follows below. The 6<sup>th</sup> annual Student meeting will be held at the University of Galway in November 2023.

### 5<sup>th</sup> Annual ISE/RSC 2022 Early Career Researcher Regional Symposium on Electrochemistry (4<sup>th</sup> November 2022)

The Early Career Researcher Regional Symposium for Ireland and Northern Ireland was successfully hosted by Queen's University, Belfast, in the School of Chemistry and Chemical Engineering by Dr Paul Kavanagh and PhD Student, Scott Place. The organisation of the event was supported by Prof. Micheál Scanlon (University of

Limerick, Ireland), Prof. Michelle Browne (Helmholtz Zentrum Berlin, Germany), and Prof. James Rohan (Tyndall National Institute, Cork, Ireland). The symposium saw a record-high registration count of 65. Accounting for some on-the-day attendees and absentees, the final number turned out to be around 50-55 attendees. The island of Ireland was well-represented, with visitors coming from various Dublin universities, the Universities of Limerick, Galway, Maynooth, and Cork. We were also pleased to see significant representation from Ulster University alongside Queen's University from Belfast.



24 oral presentations were made throughout the day. The morning session included a keynote lecture titled "Recent trends on electrochemical applications of 2D materials ranging from structural supercapacitors and electrolyzers to skin biosensors," delivered by Prof. Pagona Papakonstantinou from the School of Engineering at Ulster University. Students and postdocs delivered presentations on topics ranging from electrode and electrolyte materials, photoelectrochemical radicals for disinfection, and CO<sub>2</sub> recycling. The afternoon was split into two parallel sessions, each focusing on one of the topics of "Electrochemical Energy Storage and Conversion" and "Electrochemical Sensors." Topics here ranged from redox flow batteries, to microbial fuel cells, to ultramicroelectrode sensing and electroanalytical methods for forensic evaluation. The prize for the best presentation was awarded to Emer Farrell from University College Dublin for their work entitled "Aprotic Solvent Accumulation Amplifies Ion-Current Rectification in Conical Nanopores."

11 posters were viewable via Twitter covering topics from sensing for food or medical applications to new materials for batteries and supercapacitors. The prize for the best poster was awarded to Wesley McCormick, from ATU Donegal/Queen's University for their work titled "The application of an electroanalytical technique for monitoring the photocatalytic degradation of the pesticide MCPA." Additionally, the prize for highest engagement throughout the

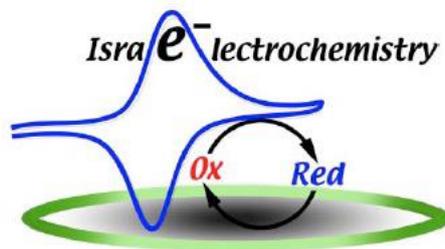
day, implemented to further incentivise student- and postdoc-driven discussions on presented works, was awarded to Maria Rybalchenko from the University of Limerick.

Many thanks to the sponsors of the event: RSC Electrochemistry Interest Group, Alvatek Ltd., Analog Devices and Queen's University Ionic Liquid Laboratories (QUILL), who kindly covered the costs to allow participation in the symposium free of charge.



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Micheál D. Scanlon  
Professor  
Department of Chemical Science,  
Bernal Institute,  
University of Limerick,  
Limerick, Ireland.



*ISE Report from the Israeli Regional Representative  
September 2023*

**Members**

Presently there are 27 Israeli ISE members which reflects an increase from the previous year (of 20 registered members). The number of electrochemists in the academy in Israel including graduate students is estimated to be over 300 and altogether in the country around 600 both from Academy and Industry, so there is still where to grow.

**General:**

The electrochemistry community in Israel is diverse, yet well organized and has a profound impact on the Israeli scientific community. The research laboratories are well distributed throughout all academic institutions, and cover all aspects of modern electrochemistry, including corrosion, energy, sensors, bioelectrochemistry, and more.

The community, usually named ISEL, has steering committee from all leading institutions, and Prof. Diana Golodnitzky is the president of ISEL. ISEL holds annual meeting, every year in a different institution. The conference of 2023, took place at the Technion with ~ 200 participants.

**Achievements in 2023:**

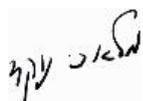
1. A unique collaborative consortium called INERC – Israel National Energy Research Consortium, was established. The consortium includes 33 prominent energy research groups from 7 Israeli academic institutions, working together on batteries, recycling used batteries, hydrogen economy, solar energy and electrocatalysis (for fuel cells and solar energy harvesting). The head of the consortium is Prof. Doron Aurbach from BIU. This consortium collaborates formally with a parallel national energy consortium in Morocco (dozens of Moroccan scientists). We established a formal collaboration between INERC and dozens of Moroccan scientists which are specifically supported generously for this bi-national collaboration by OCP – the famous Moroccan phosphates company. This formal collaboration was substantiated by a very successful bi-national workshop in Marrakech (15 Israeli scientists attended, March 2023) INERC gained 3 binational collaboration projects for this co-work, supported by Israeli Ministry of Energy. We also gained a full financial support for a big bi-national Israeli-Moroccan workshop in Israel at the beginning of 2024. We are absorbing in Israel in these months 10 -15 Moroccan graduate students that are coming to Israel to spend half a year in co-work, in the framework of this collaboration.
2. A national energy research center was awarded by Israel ministry of energy a \$35M grant for BIU and Technion to establish research center that will cover all necessary large energy storage challenges in Israel and will interface academy, industry, entrepreneurs, and government.

**Honors:**

Prof. Emanuel Peled was awarded the Israel Prize in chemistry. The Israel Prize is an award bestowed by the State of Israel, and regarded as the state's highest cultural honor. Prof. Doron Aurbach was ranked amongst the top 100 highly cited scientists. Prof. Idan Hod, won the ICS young scientist award for 2022. Dr, Arie Borenstein won the e-COST fellowship (EU commission) from Net.Pore action. Profs Michal Leskes and Malachi Noked won the Guy Sella Energy award. Prof. Eran Edri won the 2023 Toronto Prize for Excellence in Research. Prof. Zeev Gross won the Israel Chemical Society Gold Medal, 2022 and Cooper Award for Excellence in Research, 2023.

Sincerely,

Prof. Malachi Noked





DIPARTIMENTO DI CHIMICA "GIACOMO CIAMICIAN"

### ISE Annual Report 2022-2023 – Italy

**ISE membership.** The number of membership (renewal and new recruiting) is 172, slightly increased since last year. The distribution of memberships among the Divisions remains the same, with ca. 30-35 Members in Divisions 2, 6 and 7, ca. 50 Members in Divisions 1 and 5, and ca. 85 Members in Divisions 3 and 4.

#### Participation to ISE operative bodies.

- Monica Santamaria (University of Palermo) ISE Treasurer (2023-2025)
  - Luigi Falciola (University of Milan) Past Chair of Division 1 (Analytical Electrochemistry)
  - Ilaria Palchetti (University of Florence) Chair of Division 2 (Bioelectrochemistry)
  - Carlo Santoro (University of Milan Bicocca) Chair Elect of Division 2 (Bioelectrochemistry)
- In addition, Francesca Soavi (University of Bologna) has been elected as ISE Secretary General (2024 - 2026).

#### Sponsored Meetings.

Several national and international Meetings (in presence) have been sponsored by ISE and by Regional funds, and the request for the forthcoming Meetings has already been done.

- Giornate dell'Elettrochimica Italiana 2022 (GEI2022), Orvieto, 11-15/09/2022
- Autumn meeting for young chemists in biomedical sciences AMYC-BIOMED 2022, Naples, 17-19/10/2022
- Alessandro Volta's heritage and the great challenges for humanity: the past and the future of electrochemistry (IUPAC EVENT), Como 24/10/2022
- Second Italian Workshop on Energy Storage, Bressanone (TN), 25-27/01/2023
- European Winterschool & Workshop on solid-state energy conversion & storage (WSPOLYSTORAGE2023), Sestriere (TO) 19-24/03/2023
- International Workshop on Supercapacitors and Energy Storage, Bologna, 19-20/04/2023
  
- Summer Electrocatalysis School 2023 ELCATS2023, Trento, 10-15/09/2023
- Giornate dell'Elettrochimica Italiana 2023 (GEI2023), Cefalù, 17-21/09/2023
- Autumn meeting for young chemists in biomedical sciences – AMYC-BIOMED 2023, Florence, 16-18/10/2023

For the last forthcoming events the sponsorship has already been requested to ISE EC.

#### ISE-related Activities.

The Topical Meeting "Electrochemical Energy for a Greener and more Sustainable Future Society" will be held on Lago Maggiore on May-June 2024 and will be organized by Claudio Gerbaldi Politecnico of Turin), Riccardo Ruffo and Chiara Ferrara (University of Milan Bicocca) with the collaboration of the Italian Division of Electrochemistry and GISEL.

#### Relevant national activities.



DIPARTIMENTO DI CHIMICA "GIACOMO CIAMICIAN"

The Luisa Peraldo Bicelli Prize, awarded by the Electrochemistry Division of the Italian Chemical Society, aims to recognize young Italian scientific personalities who have distinguished themselves for the excellence of their basic or applied research in any field of Electrochemistry. The recipient of this Prize for the year 2023 is Carlo Santoro, the Chair Elect of Division 2.

**ISE Grants and awards 2022.**

- Early Career Analytical Electrochemistry Prize of ISE Division 1 - **Stefano Cinti** - University of Rome, Italy.
- Oronzio and Niccolò De Nora Foundation Young Author Prize 2022 - **Sara Grecchi** - University of Milan , Italy.

**ISE Grants and awards 2023.**

- Tajima Prize - **Federico Bella** -Politecnico Torino, Italy
- Zhaowu Tian Prize for Energy Electrochemistry - **Carlo Santoro** - University of Milano Bicocca, Italy
- Early Career Analytical Electrochemistry Prize of ISE Division 1- **Paolo Bollella** - University of Bari, Italy
- ISE Travel Award – Alessandro Piovano – Politecnico Torino, Italy

July 31st, 2023

Prof. Catia Arbizzani  
Alma Mater Studiorum – University of Bologna  
ISE Regional Representative of Italy.

State research institute Center for Physical sciences and Technology

Savanorių Ave. 231, LT-02300 Vilnius, Lithuania. Ph. +370 5 266 1640/1643, fax. +370 5 260 2317, e-mail: info@ftmc.lt

Vilnius, 2023-08-11

## Report of the ISE Regional Representative for Lithuania / 2023

### **Membership**

According to Member Directory of ISE, the number of members in Lithuanian ISE regional group is 29, which is slightly higher than last year (25 members in 2022). Most of the members come from academia. Efforts to sustain the current level of membership as well as to recruit new members continue.

### **Activities**

#### *Organization of conferences*

Members of the regional group took part in the organization of International Conference Chemistry and Chemical technology CCT-2023 (<https://www.cct2023.chgf.vu.lt/>).

#### *Usage of ISE funds available to Lithuania*

The funds available to our region have been used to cover Lyon conference participation fees for three PhD students, who have recently joined ISE. The students were selected in a competition organized by ISE members of Lithuania. Participants submitted their abstracts, motivation letters, CVs and recommendation letters of their supervisors and were evaluated by a commission comprised of 3 scientists from our regional group.

#### *Preparation of the proposal to host the Annual Meeting in 2027.*

Bid proposal suggesting Vilnius as a venue for the Annual Meeting of the International Society of Electrochemistry (ISE) in 2027 has been prepared and submitted to ISE.

ISE Regional Representative, Lithuania



Jurga Juodkazytė

Chief researcher  
Laboratory of Electrochemical Energy Conversion  
Center for Physical Sciences and Technology  
Saulėtekio av. 3, Vilnius LT-10257  
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International Society of Electrochemistry

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Date  
25<sup>th</sup> August 2023

Subject  
**Yearly report on regional activity on the Netherlands**

Dear Colleagues,

I am sending the report about electrochemical activities and activities of the Regional Section in the last year (September 2022 to August 2023).

- Membership is stable. As of August 2023, we have 80 ISE members affiliated with the Netherlands according to the ISE members directory. In September 2022, 81 ISE members were affiliated with the Netherlands.
- From June 13-16, 2023, the “3<sup>rd</sup> ECCM Graduate School” on ElectroChemical Conversion & Material took place in Noordwijk, NL. The scope of this graduate school is electrochemical conversion and materials, electrochemical hydrogen production and electrochemical CO<sub>2</sub> reduction. The Graduate School is open to researchers from scientific institutes and companies alike, and it achieved a balanced mix of participants. See <https://www.co2neutraalin2050.nl/graduate-school-2023/> for further information. The 1<sup>st</sup> and 2<sup>nd</sup> ECCM Graduate School had been sponsored by the ISE Netherlands regional funds. In 2023, the 3<sup>rd</sup> edition of the Graduate School was sponsored with the remaining regional funds amounting to 3,487.65 EUR.

With kind regards,



Klaus Mathwig, ISE Regional Representative for the Netherlands (2<sup>nd</sup> term 2022-2024)

## International Society of Electrochemistry Annual Report of Portugal – 2022/2023

### 1. Membership

The number of active ISE members in Portugal is currently 25. Among them there are new enthusiastic young researchers that are expected to bring more PhD students and other young electrochemists to the Society. In addition, the next XXVI SIBAE Meeting, in Lisbon, May 19-23, 2024, will help to strengthen the electrochemical field and disseminate ISE activities. Currently, the members interests are distributed as follows: **Division 1** - Analytic Electrochemistry (**12** members), **Division 2** - Bioelectrochemistry (**8** members), **Division 3** - Electrochemical Energy Conversion and Storage (7 members), **Division 4** - Electrochemical Materials Science (**10** members), **Division 5** - Electrochemical Process Engineering and Technology (**4** members), **Division 6** - Molecular Electrochemistry (**7** members), and **Division 7**. Physical Electrochemistry (**3** members). The areas of Analytical Electrochemistry and Material Sciences are the most attractive amongst ISE members in Portugal.

### 2. Activities

**ISE Award 2023** - A. M. O. Brett is awarded with the **Katsumi Niki Prize in Bioelectrochemistry**.

#### Meetings Participation/Organization

##### i) ISE Annual Meetings

- 73<sup>rd</sup> Annual Meeting (online), 12-16 September 2022. Portugal members have contributed with several oral communications (C.M.A. Brett, M. F. Montemor, L. Liu, J. P. Correia, M. Almeida, A. S. Viana) and Posters.
- 74<sup>th</sup> Annual Meeting, 3-8 September 2023, Lyon – M. F. Montemor co-organizes S08 - Coatings and electrochemical surface treatments.

##### ii) ISE Topical Meetings

- 34th Topical Meeting of the International Society of Electrochemistry, Mar del Plata, Argentina, 19 to 22 March 2023. M. G. S. Ferreira presented an oral communication.

##### iii) ISE Sponsored Meetings

- “8<sup>as</sup> Jornadas de Corrosão e Protecção de Materiais”, Lisbon, Portugal, 24 November 2022. This meeting had several ISE members in the Technical-Scientific Committee (C. M. A. Brett, M. G. S. Ferreira, J.P. Correia, J. S. Fernandes, A. C. Bastos) and participating with oral communications (C. M. A. Brett, J. P. Correia A. C. Bastos, M. G. S. Ferreira, J. Tedim).
- Conference on Electrochemistry in Industry, Health and Environment – 2023 (EIHE-2023), Mumbai, India, 7-11 February 2023. A. M. O. Brett and C. M. A. Brett gave Plenary Lectures and A.M.O. Brett was a member of the Scientific Committee.
- ISE members, from Portugal (Chair: João Salvador Fernandes; Co-Chair: Cristopher Brett, J. P. Correia and A. S. Viana) are organizing the XXVI SIBAE meeting (19-23 May 2024), in Lisbon, which will boost the electrochemistry in Portugal and will bring many ISE members and electrochemists from Spain, South American and Latin American countries.

iv) XXV Meeting of the Portuguese Electrochemical Society, Coimbra, 30 August – 01 September 2023. ISE members: A. Lopes, A. J. L. Pombeiro, D. Fernandes are involved in the organization and Scientific Committee; J. P. Correia is a member of the Scientific Committee.

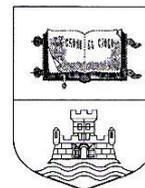
Lisbon, August 12, 2023



Ana S. Viana ([anaviana@fc.ul.pt](mailto:anaviana@fc.ul.pt))  
Faculty of Sciences, Lisbon University  
Regional Representative of Portugal



University of Belgrade



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## ISE Annual Report 2022-2023 – Serbia

September 1, 2023

### Membership

There are currently 41 ISE members from Serbia (according to data on ISE site).

### Activities

#### *The following conferences were held:*

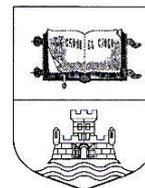
- **XXIV YUCORR – ISE sponsored meeting** – 28.-31. May 2023, Divčibare, Serbia – 6 plenary, 2 invited lectures, 5 oral presentations and 27 poster presentations
- **Modern trends in Electrochemistry in transition towards Renewable Energy Sources – scientific meeting dedicated to 100th anniversary of the birth of John O'Mara Bockris, foreign member of the Serbian Academy of Sciences and Arts**, June 5th 2023, Belgrade, Serbia, 19 Invited lectures, with participation of the members of the Electrochemical Division of the Serbian Chemical Society, organized by the Serbian Academy of Sciences and Arts, Faculty of Physical Chemistry of the University of Belgrade, and Electrochemical Division of the Serbian Chemical Society
- **59th Meeting of the Serbian Chemical Society**, with active Electrochemical branch including Invited talk, oral and poster presentations in the field of electrochemistry, June 1st and 2nd, 2023, Novi Sad, Serbia

#### *ISE members participation in other conferences with Plenary and Invited lectures*

- Global Conference on Materials Science and Engineering, November 07-09, 2022, Valencia, Spain
- International Congress on Advanced Materials Sciences and Engineering (AMSE-2023), March 2023, Viena, Austria
- Istanbul Annual International Multidisciplinary Conference on Economics, Business, Technology and Social Sciences, May 13th-14th 2023, Istanbul, Turkey
- 2nd world conference on environmental and earth sciences and world conference on recycling and waste management, May 15 - 16, 2023, Paris, France
- International Summit on Non-Renewable and Renewable Energy, August 14th – 16th 2023, London, UK
- Current Trends in Electrochemistry in the Transition to Renewable Energy Sources - Scientific Conference Dedicated to the 100th Anniversary of the Birth of Foreign Member of the Serbian Academy of Sciences and Arts J.O'M. Bockris



University of Belgrade



- Challenges in Energy Storage, 5th Metallurgical & Materials Engineering Congress of South-East Europe, Trebinje, BiH, May 2023
- XXIV YUCORR, 28.-31. May 2023, Divčibare, Serbia

### Meetings of the Electrochemical Division of the Serbian Chemical Society

Several meetings were held with online talks on different topics:

- **September 2022** – lecture „Why Should We Teach and Learn Corrosion? By Dr. Alec Groyzman, Technion, The Israel Institute of Technology, Haifa, Israel, *cancelled by the lecturer*
- **October 2022** – lecture „Defects in Graphene: theoretical insights from the standpoint of energy conversion and storage“ by dr Ana Dobrota, Assistant Professor, Faculty of Physical Chemistry, University of Belgrade. Joint meeting of the Electrochemical Divisions of the Serbian Chemical Society and Society of Physicochemists of Serbia. In addition, the decision was made on hosting the RSE-SEE9 in Novi Sad in June 2024, and dr Branimir Grgur and dr Igor Pasti were elected as presidents of the Scientific, and Organizing Committees, respectively.
- **June 2023** – lecture „Fuel Cells and Electrolyzers – From Nano to Macro in 2D and 3D ... and More“ by dr Jasna Janković, Assistant Professor, Materials Science and Engineering Department and the Center for Clean Energy Engineering, University of Connecticut
- **October 2022 – September 2023** – periodical meetings on the organization of the RSE-SEE9 (9th Regional Symposium on Electrochemistry of South-East Europe), that is to be held in Novi Sad, Serbia in June 2024 (3-7 June).

### Promotion of Electrochemistry in Serbia

In order to keep promoting electrochemistry, interactive workshops for high-school and graduate students **“Peek into the electrochemical cell”** were organized during 2022-23 again, becoming an annual event.



### Additional Information

Journal of the Electrochemical Science and Engineering, the official journal of the Association of the South East Electrochemists (Electrochemical Division of the Serbian Chemical Society is a member), has received the first Impact factor of 2.2 for the year 2022, ranked by JCI as30/42, Q3, JCI 0.29.

Yours sincerely,

Prof. Jelena Bajat  
Regional Representative of Serbia

Gothenburg, August 25 2023

## ISE Annual report 2022 (Sweden) for the RR meeting 2023.

### **Membership and ISE activities:**

The number of Swedish members 2022 have increased to 45 (from 35 2021, which was also an increase from previous years). I am not aware of any ISE-sponsored activities in Sweden since the last annual meeting, perhaps we are still recovering from hosting the 32<sup>nd</sup> Topical Meeting “Experimental and Modelling tools for Electrochemical Energy Devices” in the summer of 2022. One thing that we have done is that the members of ISE Sweden has given support an initiative from Finland to organize a Topical Meeting in the summer 2026 or 2027 with the tentative title "Sustainable Electrochemical Energy Materials: Theory and Practice".

### **Activities:**

The research interest in electrochemistry is continuing to be strong, with several national projects in battery, fuel cell, and electrolysis research. Industrially, the transformation of the automotive sector to electrification is accelerating and truck producers Volvo and Scania both have ambitious plans for battery and/or fuel cell trucks and busses. The battery megafactory Northvolt are ramping up production at the site in northern Sweden and have started construction of new sites for additional factories. The initiatives Hybrit and H2 Green Steel of producing fossil free steel using hydrogen from electrolysis is showing great progress. We see a strong increase in university courses and personnel from the industry within electrochemistry, with a larger number of students, master thesis projects, and joint research projects.

Björn Wickman, PhD  
Regional representative ISE Sweden  
Associate Professor in Physics

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**CHALMERS**

17 August 2023

-- ISE Annual Report for Turkey --

**Membership:**

Since the in-person meetings have started, current membership is at 32, up from 16 last year. I would expect the membership to increase with more physical meetings. Further, I am actively recruiting members to join.

**Activities:**

Given the political and the financial climate, no meetings were organized in Turkey this year. We will be applying for a regional meeting for the next round.



Assoc. Prof. Burak Ülgüt, Regional Representative for Turkey  
Bilkent University, Department of Chemistry

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1<sup>st</sup> September 2023

## Report of the ISE Regional Representative for the United Kingdom, 2023

**Membership:** The membership currently stands at 157 members (166 in 2022, 187 in 2021, 190 in 2020, 201 in 2019, 200 in 2018, 190 in 2017).

### Activities

The following meetings were sponsored by the ISE:

- 9th European Summer School of Electrochemical Engineering 2022, 3rd – 7th Oct., <https://www.southampton.ac.uk/essee/index.page> University of Southampton, 178 participants.
- Electrosynthesis Faraday Discussion, 12-14<sup>th</sup> July 2023, Edinburgh, 75 participants: <https://www.rsc.org/events/detail/48047/electrosynthesis-faraday-discussion>
- Metal–Oxygen Batteries, 18-20<sup>th</sup> September, York (<http://rsc.li/batteries-fd2023>): ca. 70 delegates expected.

### Upcoming activities

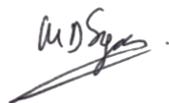
- The University of Manchester will host the 38th ISE Topical Meeting from 8-11 September 2024 (local organiser Robert Dryfe) on the topic of “Nanomaterials in Electrochemistry”

### Involvement of UK members in the ISE

The following members are currently involved in the ISE:

- Andrea Russell: vice president, 2020-2023
- Tim Albrecht: secretary general, 2018-2023
- Guy Denuault: chair of division 1
- Carlos Ponce de Leon: chair-elect of division 5
- Ismael Diez-Perez: chair-elect of division 6
- Mark Symes : chair-elect of division 7
- Rob Hillman: editor in chief of *Electrochimica Acta*

Yours faithfully,



Mark Symes

September 1, 2023

## **ISE Annual Report Meeting 2023 - USA**

### **Memberships**

As of today, there are 183 members from the United States, which is down slightly from 198 members last year. We have worked to retain members on an ongoing basis by directly emailing colleagues and talking to them at ISE, AIChE, ACS, and ECS meetings, but this has been challenging with so many hybrid meetings.

### **Activities**

1. Co-sponsoring of meetings. We normally cosponsor Gordon Research Conferences and are set to co-sponsor the Electrochemistry GRC in January of next year as they are every other year and so there was not relevant ones this year.
2. Topical Meetings – The US group plans to put in an application for a 2025 Topical Meeting in the United States focused on High Temperature Electrochemistry.
3. Annual Meetings – The US group plans to put in an application for a 2028 Annual Meeting in the United States to be held in Southern California after the Olympic Games.

Adam Z. Weber, PhD, Regional Representative for the USA  
Senior Scientist, Lawrence Berkeley National Laboratory