

Country	
Argentina	Yes
Australia-New Zealand	Yes
Austria	Yes
Belgium	Yes
Brazil	Yes
Bulgaria	
Canada	Yes
Caribbean Region	Yes
Chile	Yes
China	Yes
Croatia	Yes
Czech Republic	
Denmark	Yes
Estonia	Yes
Finland	Yes
France	Yes
Germany	
Greece	
Hungary	Yes
India	
Iran	Yes
Ireland	Yes
Israel	Yes
Italy	Yes
Japan	
Korea	Yes
Lithuania	Yes
Mexico	Yes
Netherlands	Yes
Norway	
Poland	Yes
Portugal	Yes
Romania	Yes
Russia	Yes
Serbia	Yes
South Africa	Yes
Spain	Yes
Sweden	Yes
Switzerland	Yes
Taiwan	Yes
Turkey	Yes
Ukraine	
United Kingdom	Yes
USA	Yes

Córdoba, July 2nd 2019

International Society of Electrochemistry  
Annual ISE report of Argentina – 2019

- Currently there are 25 ISE members in Argentina (July 2019)
- Argentina made postulations to the ISE Prize for Electrochemical Materials Science and to the Jaroslav Heyrovsky Prize for Molecular Electrochemistry 2019.
- The regional representative of Argentina is participating in the Scientific Committee of the XXIV CONGRESO DE LA SOCIEDAD IBEROAMERICANA DE ELECTROQUÍMICA, which will take place in Montevideo, Uruguay, between March 29<sup>th</sup> and April 3<sup>rd</sup> of 2020. In this occasion, he will make a presentation of the ISE to all attendees to disseminate the activities of the ISE and promote the formation of new partners.
- Two Argentinian scientists will be attending the next 70<sup>th</sup> ISE Meeting in Durban.
- With part of the funds obtained by Argentina from the organization of the Topical Meeting in 2017, a call for three financial helps was organized in order to promote the participation of local young researchers, who should be members of ISE, to the next 70<sup>th</sup> ISE Meeting in Durban. Unfortunately, due to the hard economic situation of the country, no applications were received.
- A group of local ISE members were (and are still) working preparing a proposal for organizing an ISE Topical Meeting in 2023, this time in the city of Mar del Plata.



Ezequiel P.M. Leiva  
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Investigador Superior CONICET  
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**International Society of Electrochemistry**  
**Annual ISE report for Australia/New Zealand region – 2019**

**Membership**

There are currently 87 active members in the Australia/New Zealand region (June 2019), with 77 members from Australia and 10 from NZ. This has grown significantly from 34 members (30 from Australia, 4 from NZ) in January 2018.

**Activities**

Several ISE sponsored activities took place over the past year using funds from successful meetings in the region (Perth, Australia, in 2012, and Auckland, New Zealand, in 2016), as detailed below.

**ISE travel awards**

As a region, it was decided to award two significant cash travel awards (\$2,000 Australian Dollars per awardee) to one PhD student and one early-career researcher (within 5 years of PhD) to enable their attendance at the 70th Annual ISE meeting in Durban, South Africa in August 2019. After being judged by a team of ISE Fellows from the region, the following applications were successful:

- Early-career award to Faezeh Makhlooghiyazad, who will give an Oral presentation entitled "Novel solid-state sodium electrolytes based on organic ionic plastic crystals" in Symposium S07 - Novel Energy Storage Materials and Devices: Batteries for Powering Tomorrow's World on Monday 5 August 2019 at 2:40.
- PhD student award to Maryam Shojaei, who will give an Oral presentation entitled "Micro-structured Pyramidal Arrays as a Rough Electrode Model for Validating Electrode Simulations" in Symposium S15 - Computational Electrochemistry and Simulation: from Prediction of Properties to Optimization of Devices on Friday 9 August 2019 at 09:50.

Many congratulations to these up-and-coming researchers on this achievement!

**ISE sponsored symposium**

The electrochemistry division of the Royal Australian Chemical Institute (RACI) organised a 2-day meeting on 29-30 April 2019 at Queensland University of Technology in Brisbane. The first day was the *ISE Student Symposium on Electrochemistry* and the second day was the *21st Australia and New Zealand Electrochemistry Symposium (21AES)*. The conference chair was Prof Anthony O'Mullane.

The symposium attracted 74 delegates from all over Australia, New Zealand, the Czech Republic, and the Netherlands, with a total of 34 talks, 22 posters, and 4 major exhibitors. Several oral and poster presentation prizes were awarded to students: two oral presentation prizes sponsored by the ISE, one oral presentation prize sponsored by the Electrochemical Division of the RACI, and 5 student poster prizes sponsored by the Royal Society of Chemistry. At this meeting, a short presentation was given on the ISE activities of the region and the benefits of being an ISE member, as a way to try to increase the number of members in the region.

**Other Electrochemical Activity in the Region**

**Electrochemistry Master Classes held at Monash University, Melbourne**

Two Master Class Courses were run jointly with the University of Cambridge, UK, and Metrohm. The first in Dec. 2017 was general and entitled Advanced Electrochemical Techniques while the second in Dec 2018 was specialist on AC Voltammetry and Impedance Spectroscopy. The first course was extremely popular, with 30 participants taking part, and the 2018 course was limited to 20 participants. All feedback on both courses has been very positive.

Yours sincerely,



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

**Institute for  
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Graz, 2019-07-09

## Report of the ISE Regional Representative for Austria 2019

### Membership

The number of Austrian ISE members has decreased from 31 in July 2018 to 27 at the time of this report. The main interest is in Electrochemical Materials Science (21 Members) followed by Electrochemical Energy Storage and Conversion (19) and Physical Electrochemistry (14).

### Activities

Ten contributions to the ISE sponsored [7<sup>th</sup> Regional Symposium on Electrochemistry for South-East Europe](#) (RSE-SEE 7) held together with the 8<sup>th</sup> Kurt-Schwabe Symposium from May 26<sup>th</sup> to 30<sup>th</sup> in Split, Croatia came from Austrian electrochemists. The Association of South-East European Electrochemists (ASEEE) has decided to organize the RSE-SEE 8 in Graz/Austria in 2021.

Likewise ten presentations including the Tajima Prize Lecture "Oxygen Redox and Singlet Oxygen in Non-aqueous Battery Chemistries" by Stefan Freunberger will be given by Austrian electrochemists at the 70<sup>th</sup> Annual Meeting of the ISE in Durban/South Africa.

The [12<sup>th</sup> International Summer School on Polymer Electrolyte Fuel Cells](#), jointly organized by Yokohama National University and Graz University of Technology, will take place in Yokohama from August 26<sup>th</sup> to 31<sup>st</sup>, 2019.

A considerable number of talks and posters will be presented by the members of the working party "Electrochemistry" within the Physical Chemistry Division of the Austrian Chemical Society at the [18<sup>th</sup> Austrian Chemistry Days](#) held in Linz from September 24<sup>th</sup> to 27<sup>th</sup>, 2019.

Dr. Bernhard Gollas

Tom Breugelmans

**Faculty of Applied Engineering**

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tom.breugelmans@uantwerp.be

DATE  
22 July 2019

SUBJECT

**ISE Report from the Belgian Regional Representative prepared for  
the 70<sup>th</sup> Annual Meeting of ISE in Durban, South Africa**

## Members

Since 2011, the number of members is at least 40. The last years, this number has increased with currently 57 active persons registered as Belgian members. This is a very stable number, which hasn't changed in the past few years.

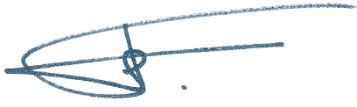
The interest and evolution in comparison to 2016 of the Belgian members in the different divisions is given here:

- Division 1: Analytical Electrochemistry: from 21 members to **14 members**
- Division 2: Bio-electrochemistry: from 18 members to **11 members**
- Division 3: Electrochemical Energy Conversion And Storage: from 26 members to **26 members**
- Division 4: Electrochemical Materials Science: from 27 members to **33 members**
- Division 5: Electrochemical Process Engineering And Technology: from 21 members to **24 members**
- Division 6: Molecular Electrochemistry: from 10 members to **8 members**
- Division 7: Physical Electrochemistry: from 18 members to **15 members**

## Activities

Each year, the Dutch and Belgian electrochemistry community gathers for the annual meeting of the working group on electrochemistry of the Koninklijke Nederlandse Chemische Vereniging (KNCV). This one-day symposium, which benefits from financial support from the ISE provides a common meeting ground for fundamental and applied electrochemistry experts from both countries. In 2016, the symposium, on the theme of Electrochemistry for quality of life, was held at the Delft University of Technology, the Netherlands and the theme was Electroanalysis. In 2018, two meetings were organized. The first meeting was held in Ghent (UGent), Belgium and the topic was 'Electrochemical CO<sub>2</sub> reduction'. A second meeting was held in Groningen (RUG) entitled 'Hyphenated Electrochemistry – Combining Electrochemical Methods with Complementary Techniques for Sensing Applications. A presentation about the ISE and its activities is always given at this meeting.

Yours Sincerely,

A handwritten signature in blue ink, consisting of a series of loops and a long horizontal stroke extending to the right.

Prof. Tom Breugelmans



July, 2019

Report of the ISE Regional Representative of Brazil - 2019

## A – Membership

The Brazilian ISE members have grown from 62 in December 2011 to 90 in July 2012. It has reached 110 members in July 2013, 107 in July 2014, with peaks of 120 in September 2015, and 119 in August 2016. After this, it decreased to 83 in July 2017, and remained with 83 members in July 2018, and with 85 in July 2019.

## B - Activities

### *Past meetings*

In November 2018, the Brazilian Society of Electrochemistry and Electroanalytical Chemistry (SBEE) promoted its first event: the “*1<sup>st</sup> Meeting of the Brazilian Society of Electrochemistry and Electroanalytical Chemistry*”. The conference covered topics related to advanced electrochemical oxidation technology, electroanalysis, energy conversion and storage and sustainable technologies. During the meeting, specific activities were reserved for students. The poster sessions motivate the stimulated interaction of Brazilian students with experts in the field of electrochemistry. The plenary lecturers were: Prof. Mehmet A. Oturan (*Université Paris-Est, Laboratoire Géomatériaux et Environnement*), Prof. Dr. Fabio H. B. Lima (*Instituto de Química de São Carlos – USP, Brasil*), and Prof. Dr. Romeu C. Rocha Filho (*Departamento de Química – UFSCar, Brasil*).

Additionally, the Amatore International Symposium, a symposium in honor of the distinguished work and lifetime achievements of Prof. Christian Amatore, was held as a division of the 2018 - Sustainable Industrial Processing Summit & Exhibition (ISE sponsored meeting) in 4 – 7 November 2018, in Rio de Janeiro, Brazil. A round table discussion open to researchers was organized during the symposium. This round table allowed high level representatives of various industries, technologies, and academic disciplines to discuss and debate all topics of this symposium, allowing possible research collaborations.

### *Forthcoming meeting:*

The “*XXII Simpósio Brasileiro de Eletroquímica e Eletroanalítica*”, a traditional meeting, will be held in Ribeirao Preto, SP, from 1 to 5<sup>th</sup> September, 2019. The conference will accept research studies on the traditional and the new areas of electrochemistry as described within the ten Divisions of the Electrochemical and Electroanalytical Brazilian



UNIVERSITY OF SAO PAULO  
INSTITUTE OF CHEMISTRY OF SÃO CARLOS  
ELECTROCHEMISTRY GROUP

Fabio H. B. Lima, Prof. Dr.

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Society: from molecular and interfacial electrochemistry to power sources and energy conversion, sensors and environmental electrochemistry, and industrial processes. The main topics can be arranged in Electrocatalysis, Environmental Electrochemistry, Electrochemistry of Nanostructured Materials, Fundamental Electrochemistry, and Bioelectrochemistry, Energy Conversion, Electrochemical Materials and Processes, Sensors and Biosensors, Surface Treatment, and Corrosion and Passivation. This symposium will have plenary lecturers, keynote presentations, and poster sessions. The plenary lectures will be: Prof. Carlos A. M. Huitle (Universidade Federal Rio Grande do Norte, Brasil), Prof. Aicheng Chen (University of Guelph, Canada), Prof. Dr. Hubert Girault (Ecole Polytechnique Federale de Lausanne, Switzerland), Prof. Julie MacPherson (University of Warwick, UK), Prof<sup>o</sup> Dr. Kouakou Boniface Kokoh (Poitiers Universite, France), Prof. Lorenzo Fedrizzi (University of Udine, Italy), Prof. Dr. Pawel Josef Kulesza (University of Warsaw, Poland), and Prof. Thiago R. L. Da Paixão (Universidade de São Paulo, Brazil).

Sincerely yours,

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Prof. Dr. Fabio Henrique Barros de Lima  
Institute of Chemistry of Sao Carlos  
University of Sao Paulo



Collaboration started between UofT **ISE member Keryn Lian** and **Polytechnique Montreal ISE Member Clara Santato**, including Profs Daria Camilla Boffito and Jamal Chaouki (Chem Eng) and Manuele Margni (Industrial Eng) in the context of a pan Canadian CREATE proposal on sustainable electronics and their powering elements (*Academic stream Collaborative Research and Training Experience Program in Sustainable Electronics and Eco-Design (CREATE SEED)*). To get info about the relevance of the proposal please refer to [http://www.nserc-crsng.gc.ca/professors-professeurs/grants-subs/create-foncer\\_eng.asp](http://www.nserc-crsng.gc.ca/professors-professeurs/grants-subs/create-foncer_eng.asp)

ISE Member Clara Santato is the principal organizer of a Symposium that will be held during the MRS Fall Meeting, Boston, 2019, with another ISE Member Francesca Soavi (Italy). [Symposium EN03—Green Electrochemical Energy Storage Solutions—Materials, Processes and Devices. Symposium Organizers](#) Clara Santato Polytechnique Montreal, Francesca Soavi Università di Bologna, Min-Kyu Song Washington State University, Hongli Zhu, Northeastern University

A number of ISE members (Francesca Soavi, Italy, Carlo Santoro, UK, Keryn Lian, Canada, and other to be defined) will collaborate to organize Nano 2020 the flagship conference of the IEEE Nanotechnology Council that will be held in Montreal in July 2020 where nanoenergy will be a key topic (one of the plenary speakers will be prof Yuri Gogotsi).

# **ISE-Caribbean Regional Section**

## **Annual Report 2018/ 2019**

### **1. Members for country**

Currently, there are the following members of Caribbean Regional Section:

Colombia: 13

Venezuela: 1

Puerto Rico: 3

### **2. Activities for country**

#### **3.1. Colombia:**

- The III Colombian Electrochemistry Congress (III CCEQ ) took place in the Santiago de Cali city from 02 to 05 October 2018. It was attended by around 170 people came from every regions of the country. The III CCEQ consisted of 7 plenary lectures, 6 teacher conferences, 3 sponsor conferences, 43 oral presentations and 53 of posters and 4 courses with the participation of undergraduate and graduate students, professors, researchers and entrepreneurs from Colombia, France and Spain. Mexico, Brazil and Venezuela.

The Congress was partially supported by ISE.

- During the III Colombian Electrochemistry Congress, the General Assemble (GA) of the Colombian Electrochemistry Association was celebrated. During the GA several issues of the organization were discussed, 82 associates from Colombia participated of the GA.

- Several Colombian resarchers participated at the XXIII Congreso de la Sociedad Iberoamericana de Electroquímica held in Cusco, Perú, june 2018.

We celebrate that number of ISE members from Colombia has increased in the last 2 years.

#### **- 3.2. Puerto Rico:**

A Senior Technical Meeting will be held in the ACS-Puerto Rico at November, with the participation of Dr. Héctor D. Abruña and Dr. Joel D. Brock, from Cornell University.

Prof. Carlos Cabrera (University of Puerto Rico) starts the Scientific project “NSF-PREM Center for Interfacial Electrochemistry of Energy Materials (CIE2M) in collaboration with the Cornell High Energy Synchrotron Source at Cornell University.

### 3.3. Venezuela:

In the year 2018, researchers from Venezuela participated at the XXIII Congreso de la Sociedad Iberoamericana de Electroquímica held in Cusco, Perú. However, due to the prolonged political crisis in the country, with economic and social consequences, the scientific activity has profoundly diminished.

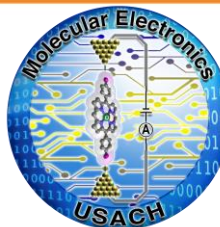
Best regards.



**D. Sc. Jorge Andrés Calderón G.**  
**Representative of the ISE Caribbean Region**  
**Universidad de Antioquia**  
**Medellín, Colombia**



UNIVERSIDAD  
DE SANTIAGO  
DE CHILE



Laboratorio de Electrocatálisis



Santiago, June 27th, 2019  
Ingrid Ponce Hormazábal  
Assistant Professor  
Molecular Electronics Group  
Universidad de Santiago de Chile  
ingrid.ponce@usach.cl

## International Society of Electrochemistry

### Annual ISE report of Chile – 2019

1. Currently, there are 45 ISE members in Chile (June, 2019).
2. The Chilean electrochemical community elected a new Regional Representative for the 2019-2021 period (Dra. Ingrid Ponce).
3. Dr. José H. Zagal and Federico Tasca sent a proposal to organize a **2021 ISE Topical Meeting** in Santiago de Chile. The ISE Scientific Meetings Committee and the Executive Committee (EC) have provisionally accepted this proposal.
4. ISE-Sponsored Meeting: **The 15th International Conference on Electrified Interfaces (ICEI2019)** will be held in Valdivia, Chile in November 3 - 8, 2019, with the Hotel Villa del Río as headquarters of the meeting. A special Issue of *Electrochimica Acta*, open for selected participants, will be published after the meeting. Guest Editors will be M. T.M, Koper, D. Scherson, and J, H. Zagal. Submission of contributions will be open after the conference. For further information see: <https://www.deq.cl/icei2019>.

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Dra. Ingrid Ponce Hormazábal  
ISE Regional Representative of Chile



July 7, 2019

## **Annual ISE report of China (2019)**

### **Members:**

ISE Regional of China actively encourages the Chinese scientists in the field of electrochemistry and related fields to become the ISE member through the website of CSE (the Chinese Society of Electrochemistry) and WeChat. The current number of ISE members in China mainland is 295.

### **Activities:**

ISE regional group is organizing the 20<sup>th</sup> National Electrochemistry Conference of China, which will be held in Changsha on 25<sup>th</sup> - 28<sup>th</sup>, October, 2019. The conference is themed of “electrochemistry promotes industrial development” and will set up 24 symposiums, scoping from basic electrochemistry theory to electrochemical measurements, materials electrochemistry, chemical power sources, industrial electrochemistry, and electrochemical education forum. More than 3000 participants are expected to attend this meeting. CSE and ECS will jointly organize an “International Symposium on Energy & Environment” paralleled with the CSE2019. Besides, ISE regional group successfully organized 2019 International Conference on Electrocatalysis and Electrosynthesis, and is organizing 3<sup>rd</sup> Asian Symposium on Electrochemical Impedance Spectroscopy (Nov 15-17, 2019, Changsha, China).

Prof. Zhong-Qun Tian at Xiamen University serves as President of ISE. Prof. Yongyao Xia at Fudan University serves as the Chair of the New Topics Committee. Prof. Yongyao Xia was elected as ISE fellow in 2019. Dr. Wei Jin from Chinese Academy of Sciences, and Dr. Jiayan Luo from Tianjin University received ISE-Elsevier Prize for Green Electrochemistry and ISE Elsevier Prize for Applied Electrochemistry.

ISE regional group actively encouraged the Chinese scientists to attend the 69<sup>th</sup> ISE Annual Meeting, in Bologna, Italy. More than 170 participants from China attended the meeting. ISE regional group is also promoting Chinese scientists to join the 70<sup>th</sup> ISE annual Meeting, in Durban, South Africa.

Jun CHEN, PhD/Professor @ Nankai University  
ISE Regional Representative of China



University of Zagreb  
Faculty of Chemical  
Engineering and Technology



Zagreb, June 30<sup>th</sup>, 2019

Dr. sc. Marijana Kraljić Roković  
University of Zagreb  
Faculty of Chemical Engineering and  
Technology  
Department of Electrochemistry  
Phone: +385 1 4597 112  
E-mail: mkralj@fkit.hr

## ISE - ANNUAL REPORT FOR CROATIA 2018/2019

### Membership

The current number of ISE members in Croatia is 21. Since last report the number has increased by 1.

### Activities

1. Two members from Croatia actively participated at 69<sup>th</sup> Annual Meeting of the International Society of Electrochemistry in Bologna (Italy).
2. Research Laboratory for Corrosion Engineering and Surface Protection (ReCorr) within the Faculty of Chemical Engineering and Technology at University of Zagreb has organized several workshops in Croatian for both industry and academia combining practical and theoretical knowledge on corrosion and corrosion protection (Basic course on corrosion and protection, Corrosion protection by coatings, Corrosion protection in concrete, easurements in cathodic protection systems, Corrosion inhibitors and corrosion monitoring). Next year these courses will be also given in English. Our members were involved in the organisation of the workshops.
3. In February 2019 some members actively participated in Open Doors Days organised by Faculty of Chemical Engineering and Technology, University of Zagreb, where Laboratory of Electrochemistry was presented to the public and to the future students. ([https://www.fkit.unizg.hr/news/41233/Dan\\_otvorenih\\_vrata\\_FKIT-2019.pdf](https://www.fkit.unizg.hr/news/41233/Dan_otvorenih_vrata_FKIT-2019.pdf))
4. Our member Nadica Ivošević De-Nardis was involved in organisation as of "Molecular Biophysics: ABC of the puzzle of Life" (The third COST-sponsored ARBRE-MOBIEU



plenary meeting) that took place on March 18-20, 2019 in Zagreb, Croatia. (<https://arbremobieu.eu/zagreb-2019-home/>)

5. In order to promote electrochemistry for future engineers ISE member Marijana Kraljić Roković has organized for students a visit to aluminum production plant "Aluminij d. d." in Mostar, Bosnia and Herzegovina (May 13<sup>th</sup>, 2019).

6. Our member Nadica Ivošević De-Nardis actively participated with oral presentation in the Bioelectrochemical Society meeting (Limerick, Ireland) that took place during the May. This meeting was supported by International Society of Electrochemistry.

7. In May 2019 six members participated in organisation of the 7<sup>th</sup> Regional Symposium on Electrochemistry-South-East Europe (RSE-SEE7) that took place between May 27-30, 2019 in Split, Croatia. It was organised jointly with 8<sup>th</sup> Kurt Schwabe symposium and Satellite student symposium. Student symposium was designed for PhD and postdoctoral students in the fields of electrochemistry and electrochemical engineering. The RSE-SEE7 was supported by ISE. Our members participated with three oral presentations and four poster presentations. (<http://www.aseee.eu/index.php/rse-see7-home>)

8. 9<sup>th</sup> ISE Satellite Student Regional Symposium on Electrochemistry took place at Ruđer Bošković Institute (June, 2019). 20 participants (young scientists, PhD students and undergraduate students) took part in oral presentations. The Student Regional Symposium was supported by ISE. Students from Slovenia participated in organisation of this Meeting. (<https://www.irb.hr/Kalendar/Arhiva-dogadaja/9th-ISE-Satellite-Student-Regional-Symposium-on-Electrochemistry>)

A handwritten signature in blue ink, appearing to read 'M. Kraljić Roković'.

Marijana Kraljić Roković  
ISE-RR of Croatia

17. Jul 2019

### **ISE Annual report 2019 (Denmark)**

#### **Membership:**

The number of Danish members 2019 is 39, mainly from the Technical University of Denmark, Copenhagen University and Aarhus University. There is however a potential for more members as there are many activities within electrochemistry and strong centers.

#### **Activities:**

There were several contributing, invited and keynote talks and posters at the annual meeting in Bologna 2018 there is also Danish contributions at the upcoming meeting in South Africa, among those a keynote talk from University of Copenhagen.

Finally, I am very grateful that I received the Alexander M. Kuznetsov Prize for Theoretical Electrochemistry 2019.

Sincerely,



Ph.D. Jan Rossmeisl,  
Professor  
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Universitetsparken 5, 2100, København Ø  
jan.rossmeisl@chem.ku.dk



## Annual report on the activities of Estonia

26/06/19

Dear Profa. Dra. Marília Oliveira Fonseca Goulart and Doc. Dr. Petr Krtil,

With the following, I would like to report the activities in Estonia.

Estonia has a relatively large and supportive community of electrochemists who are members of ISE. Currently, there are 38 active members.

**The 7th Baltic Electrochemistry Conference: Finding New Inspiration** was held in Tartu, Estonia from November 4 to November 7, 2018. The conference was supported by ISE.

173 delegates from 30 countries (from European Union countries, United States of America, Japan, Chile, Republic of South Africa etc.) were attending BEChem2018. Altogether 72 oral (in 2 parallel sessions) and 53 poster presentations were presented by professors, researchers, post-doctoral fellows and students. 6 international companies were presenting their equipment/products at the conference.

Estonian ISE members are also interested in participating and actively taking part in **ISE annual and topical meetings**.

Other **local seminars and workshops** are organized regularly, where ISE members present their latest work.

Sincerely

Liis Siinor, Ph.D.

Research Fellow of Physical Chemistry

Institute of Chemistry

University of Tartu

Ravila 14a, 50411 Tartu

Estonia

## ISE REPORT 2019 from the Regional Representative Finland

### Members

The number of ISE members within Finland is currently 20 – which is approximately the same as the previous year. It is anticipated however, that this number will begin to increase over the coming months as at least two senior research/professor-level positions in electrochemically related areas have been recently appointed. Moreover, the funding of battery related activities with an emphasis on circular economy aspects has been identified as by the Finnish Government as a key area for research future growth. This is exemplified by the recently funded 22 Million € BATCircle project led by Aalto University's School of Chemical Engineering.

### Activities

Members have been active at a number of electrochemical conferences in the last 12 months including the [7<sup>th</sup> Baltic Electrochemistry Conference \(BEC'18\)](#) in Estonia. In addition, Prof. Murtomäki (Chair of Physical Chemistry and Electrochemistry, Aalto University) was actively involved in the scientific committee of BEC'18 as the previous chair. Moreover, Prof. Johan Bobacka of Åbo Academy, one of the region's longest serving ISE members, was recognised for his contributions to science and education by being made a First Class Knight of the White Rose of Finland by the President Niinistö in December 2018.

This year also saw the second year of the ISE Finnish Region's Travel Bursary to attend the ISE Annual Meeting, which is provided from the dividends of the 6<sup>th</sup> BEC in Helsinki. After careful consideration of all the applications this was presented to Fatemeh Davodi from the Electrochemical Energy Conversion Group of Aalto University for her abstract entitled "*Mechanistic Insights toward Design of Advanced Metal@CElectrocatalyst for both Alkaline and Acid media with Tunable Structure*".

### Future Plans

It is planned to undertake a membership drive that targets senior researchers in areas with an electrochemical aspect (like energy materials and conversion, corrosion, batteries/storage etc.) through a broader promotion of the Finnish Region's Travel Bursary (see above) beyond the current membership list. In addition, as my second term is soon over, discussions will commence related to the finding the next Regional Representative.

I will also be attending the ISE meeting in Durban and look forward to joining the Regional Representative get-together to discuss with other national ISE representatives.



Dr. Ben Wilson, Regional Representative, Finland ([ben.wilson@aalto.fi](mailto:ben.wilson@aalto.fi))



Université de Lille  
Institut d'Electronique, de Microelectronique et de Nanotechnologie  
(IEMN-UMR CNRS 8520)

## ISE ANNUAL REPORT 2019 FRANCE

### ISE Membership

The number of ISE members within France is currently 216, which is a slight decrease of previous years (236 members in 2018, 254 members in 2017, 260 members in 2016, 265 members in 2015, 233 members in 2014).

### Activities

This year was characterized with a large increase in the scientific manifestations in France sponsored by ISE and ISE France.

#### 1. 11<sup>th</sup> International Symposium on Electrochemical Impedance Spectroscopy (<http://www.eis2019.org/>)

**Dates:** 2-7 June 2019

**Location:** Lège-Cap-ferret

**Organisers:** V. Vivier, O. Devos, O. Gharbi, B. Gwinner, A. Loret, S. Marceline, K. Ngo, N. Pébère, D; Renaux, F. Roillard, S. Touzaini, B. Tribollet

Following the tradition, this all-inclusive meeting brings together experts who apply impedance spectroscopy to different disciplines. EIS 2019 will describe recent advances and applications of EIS, including: batteries and fuel cells, sensors, biomedical devices, corrosion, coatings, semiconducting electrodes, electrochemical kinetics and mechanisms, electronic and ionic conducting polymers, localized electrochemical impedance spectroscopy, data processing, and solid-state systems.

#### Plenary Lectures

Claude GABRIELLE (LISE-Sorbonne Université, France)

Achim HASSEL (Johannes Kepler University Linz, Austria)

Oscar MATTOS (Federal University of Rio de Janeiro, Brazil)

Ramón NÓVOA (University of Vigo, Spain)

Daria VLADIKOVA (Institute of Electrochemistry and Energy Systems, Bulgaria)

Jianbo ZHANG (Tsinghua University, China)

#### Tutorial

Bernard TRIBOLLET (LISE-Sorbonne Université, France)

## **2. 13<sup>th</sup> ECHEMS meeting (<https://echems2019.sciencesconf.org/>)**

**Dates:** 20-23 May 2019

**Location:** Saint-Pierre d'Oléron

**Organisers:** Alexander Kuhn

ECHEMS is an international series of meetings established in 2005. It aims at promoting the use and development of electrochemistry as a powerful tool to study scientific problems in hot areas of current research. The meeting will cover all fields of electrochemistry with a special focus on electrochemistry for symmetry breaking in molecules, materials and processes.

### **Key Note Lectures**

Hubert GIRAULT (EPFL, Switzerland)

Juan FELIU (University of Alicante, Spain)

Siegfried WALDVOGEL (University of Mainz, Germany)

Gary ATTARD (University of Liverpool, United Kingdom)

Marc ROBERT (University Paris 7, France)

### **Invited Lectures**

Robert M. CORN (University of California-Irvine, USA)

Kristina TSCHULIK (University of Bochum, Germany)

Jenny ZHANG (University of Cambridge, United Kingdom)

Gabriel LOGET (CNRS Rennes, France)

## **3. 2<sup>nd</sup> international Congress “Electrolysis and Fuel Cell Discussion: Towards catalyst free of critical raw materials for fuel cells and electrolysis (<http://www.efcd2019.eu/>)**

**Dates:** 15-18 September 2019

**Location:** La Grande-Motte

**Organizers:** Debora Jones, Frédéric Jaouen, Pierre-Yves Blanchard, S. Cavaliere, N. Cros

Following the success of EFCD2015 - Electrolysis and Fuel Cell Discussions, Challenges Towards Zero Platinum for Oxygen Reduction, the Electrolysis and Fuel Cell Discussions conference in 2019 is dedicated to catalysts with minimum amount of Critical Raw Materials, and in particular of Platinum Group Metals. This conference is the opportunity to present recent results in the field and to discuss the scientific and technological challenges on the way towards zero platinum.

### **Invited Lectures**

Lior ELBAZ (Bar-Ilan University, Israel)

Akimitsu ISHIHARA (Yokohama National University, Japan)

Alex Martinez BONASTRE (Johnson Matthey Fuel Cells, United Kingdom)

Sanjeev MUKERJEE (Northeastern University, USA)

William MUSTAIN (University of South Carolina, USA)

Peter PINTAURO (Vanderbilt University, USA)

Bryan PIVOVAR (National Renewable Energy Laboratory, USA)

Alexey SEROV (Pajarito Powder, USA)

Peter STRASSER (Technical University of Berlin, Germany)  
Piotr ZELENAY (Los Alamos National Laboratory, USA)  
Iryna ZENYUK (University of California, Irvine, USA)

#### **4. Journées d'Électrochimie (<https://je-toulouse2019.sciencesconf.org/>)**

**Dates:** 2-5 July 2019

**Location:** Toulouse

**Organizers:** Karine Groenen Serrano and Pierre Gros

The "*Journées d'Electrochimie*" is a biennial scientific congress organized under the aegis of the electrochemical subdivision of the Société Chimique de France. Since 1983, this event has brought together the French-speaking community of electrochemists (nearly 300 researchers, research professors, doctoral students and industrialists) around several broad themes: electrocatalysis, electroanalysis and sensors, nanoelectrochemistry, bioelectrochemistry, batteries and fuel cells, corrosion, surface treatment, electrochemical engineering, etc.

#### **Invited plenary speakers:**

Christian AMATORE (ENS – CNRS, Membre de l'Académie des sciences)

Claudine BUESS-HERMAN (Université libre de Bruxelles)

Alain WALCARIUS (Université de Lorraine)

#### **Rewards sponsored by ISE:**

- 3 Poster Awards : Marie LACHAL (LEPMI-Grenoble), Baptiste LOTTIN (COBRA-Rouen), Ranine EL HAGE (LGCèToulouse)
- "Prix Jeunes Chercheurs": Ivan T. Lucas (LISE-Sorbonne Université)

#### **5. 10<sup>th</sup> SECM workshop (<http://www.secm-workshop.org>)**

**Dates:** 2-5 July 2019

**Dates:** 29 september-3 october 2019

**Location:** Fontainebleau

**Organizers:** Fethi Bedioui, Carlos Sanchez-Sanchez

Scanning electrochemical microscopy (SECM) is utilized by a continuously growing number of research groups exploring a variety of research areas including energy conversion and storage, catalysis, biochemistry, liquid-liquid interfaces, micro- and nanofabrication, corrosion and miscellaneous fields of surface science. SECM is usually applied to imaging of chemical and biological activities of various interfaces as well as to their localized modification with high resolution. The 10<sup>th</sup> Workshop on SECM and Related Techniques continues the series of previous exciting meetings.

#### **Confirmed Speakers:**

M. ALPUCHE-AVILÉS (University of Nevada at Reno, USA)

C. AMATORE (École Normale Supérieure – CNRS, France)

R. CORNUT (CEA – CNRS, France)

C. DEMAILLE (Université Paris Diderot – CNRS, France)

G. DENUAULT (University of Southampton, UK)  
Z. DING (The University of Western Ontario, Canada)  
M. ETIENNE (Université de Lorraine – CNRS, France)  
P. HAPIOT (Université de Rennes 1 – CNRS, France)  
K. INO (Tohoku University, Japan)  
C. KRANZ (Ulm University, Germany)  
A. LESCH (Università di Bologna, Italy)  
J. MAUZEROLL (McGill University, Canada)  
A. MINGUZZI (Università degli Studi di Milano, Italy)  
W. NOGALA (Institute of Physical Chemistry, Poland)  
S. RAPINO (Università di Bologna, Italy)  
J. RODRIGUEZ-LOPEZ (University of Illinois at Urbana-Champaign, USA)  
W. SCHUHMANN (Ruhr-Universität Bochum, Germany)  
M. SHEN (University of Illinois at Urbana-Champaign, USA)  
V. Vivier (Sorbonne Université – CNRS, France)  
G. Wittstock (University of Oldenburg, Germany)

13 June 2019  
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Regional Representative for France (2017-2019)  
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Budapest, July 30, 2018.

**Report of activities: Hungarian section of ISE**  
prepared for the Meeting of Regional Representatives of ISE,  
69th Annual Meeting, Bologna, Italy, September 2-8, 2018

**1. ISE members from Hungary**

The ISE membership from Hungary was nearly stagnant during the past decade; now a definite growth of membership happened: now we have 27 Hungarian ISE members. It is a fortunate change that the young people belong to groups dealing with „pure electrochemistry” at two major physical chemistry university departments (rather than employing electrochemistry in a group of other disciplines); probably this number will be stabilized.

**2. Scientific activity**

Electrochemistry in Hungary has always played a central role in physical chemistry teaching – both on undergraduate and graduate level. This is so also nowadays: the two basic subject at the above-mentioned two universities are focused on photoelectrochemistry and electrochemical kinetics, respectively. There exist also other smaller scale studies (done by ISE members) on corrosion, batteries/supercapacitors and metal deposition in other institutions. Two Hungarian groups (of non ISE-members) are active in sensor-related electrochemistry.

The ISE members working in Hungary published altogether 5 (five) papers in the *Electrochimica Acta* since the last report (since 2017 summer).

**3. Meetings:**

This year there were no electrochemistry-related international conferences held in Hungary; nevertheless, we organized a couple of local meetings at the universities.

A handwritten signature in blue ink that reads "Tamás Pajkossy".

Tamás Pajkossy  
Regional ISE representative of Hungary

## **Report of the ISE Regional Representative for the I.R. Iran**

**(Aug. 2019)**

### **A- Membership**

In 2019, 15 Iranian scientists are active in different ISE sections. Currently, due to the problem to send the membership fee to overseas from Iran, Iranian ISE members are inactive.

### **B- Activities**

The Iranian electrochemists have participated in several international and national conferences on electrochemical topics including:

- 1- 14 th Annual Electrochemical Seminar, Sep. 3-6, 2018, Tarbiat Modares University, Tehran, Iran; by Electrochemical Soc. of Iran.
- 2- 20 th Iranian Chemical Society Conference (with a separate section in electrochemistry), 21-23 Aug. 2018, Mashhad University, Mashhad, Iran.
- 3- 25 th Iranian Analytical Chemistry Seminar, Sept. 3-6, 2018, Tabriz University, Tabriz, Iran.
- 4- ISE 69th Annual Meeting, 2-7 Sep., 2018, Bologna, Nuovo Polo Congressuale.

Based on Scopus reports more than 1400 papers have been published in 2018 by Iranian scientists in the field of electrochemistry. This is increased in the Iranian publication in electrochemical methods vs. 2017.

Isfahan, July 13, 2019

Behzad Rezaei

Regional Representative of I. R. IRAN

Department of Chemistry

Isfahan University of Technology,

Isfahan 84156-83111

IRAN





University College Cork  
Lee Maltings  
Cork  
Ireland

9<sup>th</sup> July 2019

## ISE Ireland Regional Representative Annual Report (2018-2019)

### **Members.**

The number of ISE members in Ireland has increased to thirty four over the past year with six of the universities, two institutes of technology and three members from industry represented. Division 1, Analytical Chemistry has now the largest affiliation with nineteen members. There has been an increase in postgraduate student participation and they now account for 56% of the membership up from 40% in the previous two years.

### **Activities.**

The electrochemistry community continues to expand with an increased focus nationally on electrochemical sensing, energy, nanotechnology and materials research. This year the second annual Student meeting took place in the University of Limerick, chaired by ISE student member Andres Molina who prepared and submitted a report on the meeting. The event was kindly sponsored by ISE. A third annual meeting is planned and will most likely be organised by one of the student members in Dublin.

At the Annual Meeting in Durban there will be two oral presentations from electrochemists based in Ireland.

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Dr. James Rohan

Electrochemical Materials & Energy

Tyndall National Institute

University College Cork

Ireland

[tyndall.ie](http://tyndall.ie)

[tyndall.ie/emd-electrochemical-materials-and-energy](http://tyndall.ie/emd-electrochemical-materials-and-energy)

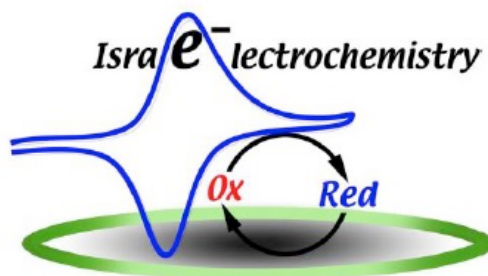
[connectcentre.ie](http://connectcentre.ie); <http://edge-research.eu/supervisors/james-rohan/>

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Prof. Lital Alfonta, Israeli RR for the ISE

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***ISE Report from the Israeli Regional Representative***

***June 2019***

**Members**

Presently there are 42 Israeli ISE members, most are from academia. This number reflects an increase from 30 members in 2017. The number of electrochemists in the academy including graduate students is estimated to be over 170. With new faculty members that have joined the electrochemical community in the past three years by University name:

Bar-Ilan University: Malachi Noked, Lior Elbaz.

Ben-Gurion University of the Negev: Arik Yochelis, Eran Edri, Hadar Ben-Yoav, Emmanuel Shalom, Idan Hod.

Technion: Mathew Suss, David Eisenberg, Dario Dekel, Omer Yechezkeli

Tel-Aviv University: Brian Rosen.

**Honors**

Elena Davydova received this year's ISE travel award for young electrochemists.

5 of the ISE members in good standing are ISE Fellows: Aurbach, Gileadi, Lev, Mandler and Peled. This respectable number (out of 73 ISE Fellows overall) reflects the achievements of Israeli electrochemists.

**Activities**

The annual meeting of electrochemistry is called Israelectrochemistry and is held almost every year at a different University. The Annual meeting of the Israeli Electrochemical Society will be held this year in September 23<sup>rd</sup> at the Ben-Gurion University of the Negev and it will be held in memory Prof. Israel Rubinstein of the Weizmann who passed away

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Prof. Lital Alfonta, Israeli RR for the ISE

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earlier this year. This year annual meeting will be preceded by a students' electrochemistry workshop of one day, on September 22<sup>nd</sup> at the Ben-Gurion University as well. The purpose of the workshop will be to expose students from Israel who don't necessarily use electrochemistry as their tool to the possibilities of the electrochemical techniques in their research. These meetings are usually supported by the Baruch Zinger Foundation.

In addition to the annual meeting, a few industry oriented meetings are organized by Shmuel De-Leon Energy Ltd. ([www.sdle.co.il](http://www.sdle.co.il)). The Annual Israanalytica meeting that was held in January 2019, includes many electrochemists in its program.

In addition, in January of 2019, Dr. Brian Rosen has organised the Winter School on Nanomaterials for Energy Storage and Conversion in Tel-Aviv University with many renown invited speakers. Another event will occur in September organized by the Technion, a Catalysis related conference on September 8-11: Catalysis – small molecules, big challenge that includes many electrochemists from around the world: Marc Koper, Shelley Minteer, Gary Brudvig, Hector Abruna and many more.

Prof. Lital Alfonta





DIPARTIMENTO DI CHIMICA "GIACOMO CIAMICIAN"

### ISE Annual Report 2019 – Italy

**ISE membership.** The high participation in the 69<sup>th</sup> Annual Meeting in Bologna has had a positive effect also on the number of membership (renewal and new recruiting) that has increased of 100%, up to reach **231 active members**. I would like to confirm this number also in the next year and the effort in recruiting new members will be focused mainly on PhD students and young scientists. The distribution of memberships among the Divisions evince that a particular effort should be done toward Divisions 2, 6 and 7, which count ca. 30-36 Member, and less to the Divisions 1 and 5, which count ca. 55 Members and Divisions 3 and 4, which count 98 and 112 Members.

#### Participation to ISE operative bodies.

- Francesco Paolucci (University of Bologna)  
Vice-President ISE Executive Committee, Responsible for communication and external relationships for the years 2019-2021;
- Francesca Soavi (University of Bologna)  
Chair of Division 3 (Electrochemical Energy Conversion and Storage) for the year 2019;
  
- Monica Santamaria (University of Palermo)  
Chair of Division 4 (Electrochemical Materials Science) for the year 2019;
- Patrizia Mussini (University of Studies of Milan)  
Chair of Division 6 (Molecular Electrochemistry) for the year 2019;
- Luigi Falciola (University of Milan)  
Chair Elect of Division 1 (Analytical Electrochemistry) for the year 2019  
Member of the Publications Committee for the years 2018-2020;
  
- Simonetta Palmas (University of Cagliari)  
Vice-Chair of Division 5 (Electrochemical Process Engineering and Technology) for the year 2019.

**Sponsored Meetings.** ISE sponsorship has been granted to the following Congresses held in Italy in 2019:

1. INTERNATIONAL SPRING SCHOOL OF ELECTROCHEMISTRY - Smart Materials for and from Electrochemistry, 19-23 May 2019, Castellammare del Golfo (Trapani - Italy), sponsored by Division 4 and ISE Regional funds.
2. International Workshop on Supercapacitors and Energy Storage, 27-28 June 2019 (Bologna – Italy), sponsored by Division 3 and ISE Regional funds.
3. Giornate Nazionali Sulla Corrosione e Protezione, 3 – 5 July 2019 (Palermo – Italy), organized by the Italian Society of Metallurgy (AIM), sponsored by ISE Regional funds.



DIPARTIMENTO DI CHIMICA "GIACOMO CIAMICIAN"

4. Giornate dell'Elettrochimica Italiana 2019, 8 - 12 September 2019 (Padova – Italy), sponsored by the Executive Committee and ISE Regional funds.

**ISE-related Activities.**

Monica Santamaria, Chair of Division 4, Onofrio Scialdone and the electrochemistry groups of the University of Palermo, on behalf of the Electrochemistry Division of the Italian Chemical Society, organized the 1st International Spring School of Electrochemistry (ISSE), Smart Materials for and from Electrochemistry, from 19th to 23rd May 2019 at the Hotel Al Madarig, Castellammare del Golfo, Italy. The School has been attended by 70 students, from 9 countries: Italy, Israel, Germany, Lithuania, United Kingdom, Poland, South Africa, Slovenia, Sweden. The program comprised 12 lectures covering topics like materials for fuel cells, batteries, modern sensors, photoelectrochemical devices and smart integrated electronics, as well as fundamentals of electrochemical impedance spectroscopy, X-ray absorption spectroscopy, electrocatalysis in water and in aprotic solvents, electrodeposition, anodizing science and technology. A special lecture has been devoted to illustrating the opportunities offered by the European Union to young investigators wishing to develop their own original research projects. Encouraged by the success of the first edition, the board of the Electrochemistry Division of the Italian Chemical Society intends to organize similar Schools on a regular basis, possibly each third year.

The International Workshop on Supercapacitors and Energy Storage took place in Bologna (Italy) on 27-28 June 2019. The participation of students and young researchers was very high, as well as the participation of companies working in the field. The Workshop comprised 30 oral contributions and 12 posters presented by students. Two of these poster presentations were awarded with a prize offered by ISE Regional funds.

The other ISE sponsored Meeting that will be held in Italy are in preparation.

Francesca Soavi, Chair of the Division 3, is organizing Waste-Water-Energy as Resource for a Sustainable Future, a satellite meeting (7-9 August 2019, just before 70<sup>th</sup> ISE Meeting) that will be held in Durban South Africa and sponsored by Division 3.

Given the success of the 69th Annual ISE Meeting held in Bologna in September 2018, I will propose to the General Assembly of the Electrochemistry Division of the Italian Chemical Society, which will be attended by many Italian ISE members, to consider the organization of an ISE Topical Meeting in Italy, during the next few years.

June 29<sup>th</sup>, 2019

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

## ISE REPORT 2019 from Korea

### Members

The number of active ISE members from Korea is now in steady state. We are trying to boosting up the continuation of the membership and the recruit of new members.

### Activities; Preparation of ISE 2021 annual meeting in Jeju Island, Korea

We hosted the ISE 2021 annual meeting to ICCJeju (International Convention Center Jeju) which is located in the southern part of the island. You can easily reach to Jeju Island through 10 domestic route from Seoul, Busan, Daegu, Gwangju, etc and 16 international routes from main cities of Japan, China, Taiwan, etc. with visa-free entry.



The Korean Electrochemical Society (KECS) fully supports the meeting and decided to combine 2021 KECS Fall meeting to ISE 2021. Therefore the ISE meeting will be held in association with KECS. The first circular is prepared and will be distributed in coming Durban meeting. The theme of the title to be “Electrochemistry from Fundamentals from Products” and it will cover from the fundamental understanding of electrochemical sciences to the foremost electrochemical technologies for the products and processes with societal impact.

The Organizing Committee from local side and Local Organizing Committee is fixed as follows and started working for the preparation.

OC members from Korean side

**Woonsup Shin** (Sogang University), **Chair**, RR of ISE, Next President of KECS

**Seung Mo Oh** (UNIST, Ulsan National Institute of Science and Technology), **Co-Chair**, Secretary of 2005 ISE meeting

**Jaeyoung Lee** (Gwangju Institute of Science and Technology), **Secretary**, Chair of ISE topical meeting in Gwangju, Korea in March 2016

**Hye Jin Lee** (Kyungpook National University)

**Taek Dong Chung** (Seoul National University)

LOC

**Wonil Cho** (KIST, Korea Institute of Science and Technology), **Chair of LOC**, current President of KECS

**Hasuck Kim** (DGIST, Daegu and Gyeongbuk Institute of Science and Technology), **Advisor**, Past President of ISE, Chair of 2005 ISE meeting

**Chi Hwan Han**, (KIER, Korea Institute of Energy Research)

**Hyoung-Juhn Kim** (KIST, Korea Institute of Science and Technology)

**Jin Young Kim** (Seoul National University)

**Dongil Lee** (Yonsei University)

**Jae-Joon Lee** (Dongguk University)

**Sang-Young Lee** (UNIST, Ulsan National Institute of Science and Technology)

**Yung-Eun Sung** (Seoul National University)

**Young Suk Tak** (Inha University)

**Haesik Yang** (Pusan National University)

**Won-Sub Yoon** (Sungkyunkwan University)

I am looking forward to seeing you all soon in Durban.

July 16, 2019

Woonsup Shin, Regional Representative of Korea  
Department of Chemistry/ BioMedical Engineering, Sogang University, Seoul, Korea.

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International Society of Electrochemistry

ISE ANNUAL REPORT LITHUANIA

Vilnius, 18-07-2019

### **Members**

The number of the members in the ISE regional group decreased **from 37 to 35** in the last year. It is still a very big number for Lithuania because usually the regional group has 15-20 members.

### **Activities**

ISE regional group is preparing ISE sponsored meeting **ESEAC 2020** in Vilnius, Lithuania.

**Special issue in Electrochimica Acta** devoted to the **23<sup>rd</sup> ISE Topical Meeting** in Vilnius has been published this year with 14 very good contributions. **R. Pauliukaite** was a Guest Editor of this Special Issue.

**R. Pauliukaite** is a Chair of the Scientific and organising Committees of the **ESEAC 2020 in Vilnius, Lithuania**. She was also a member of the Scientific Committee of the ISE sponsored meeting the **7<sup>th</sup> Baltic Electrochemistry Conference, Tartu, Estonia**.

**R. Pauliukaite** became a **vice-chair of Division 1**, Analytical Electrochemistry.

### **Publications by ISE regional group members:**

**1 oral presentations and 4 posters** were presented in the **ISE Annual Meeting in Bologna** last year;

**7 papers** were published in *Electrochimica Acta* by ISE members in 2018-2019;

**2 oral presentations and 5 posters** were presented in the ISE sponsored conference the **7<sup>th</sup> Baltic Electrochemistry Conference, Tartu, Estonia**.

### **Future perspectives**

Our main future perspective is organisation of the **ESEAC 2020**, ISE sponsored conference. Also we will attend ISE and ISE sponsored meetings. Unfortunately, no one from the Lithuanian group will be able to attend the Annual Meeting in Durban. We will try to keep the same number of the members in our regional group.



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## **ISE Report from the Mexican Regional Representative June 2019**

### **ISE Membership:**

The number of ISE members belonging to the Mexican region is 101. This number concerns academics and students of the different universities and institutes that develop different disciplines of electrochemical science.

### **Participation to ISE operative bodies**

In this period the active members of the Mexican Region have not participated in any ISE operative bodies

### **Sponsored Meetings**

24<sup>th</sup> ISE Topical Meeting (<https://topical24.ise-online.org/>), which was carried out at Merida City, Mexico, from 7 to 10 April 2019. This Meeting was organized by, some active ISE members of the Mexican region (Dr. Carlos Frontana, Dr. Ignacio González and Dra. Linda V. González-Gutiérrez). The main theme of this conference was “Electrochemical Assembly at the Meso, Nano and Molecular Scale”. and the abstracts submission will be opened in October 1, 2018.

17th International Symposium on Electrokinetic Remediation (EREM 2019) (<https://www.arem2019.com/>). This Meeting will be carried out at San Miguel de Allende, Guanajuato, Mexico from 22 to 27 September 2019. This meeting will be partially sponsored by both Division 5 and the Mexico Region of ISE. Two active ISE members participate in the organization of this event (Dra. Erika Bustos Bustos and Dr. Juan Manríquez Rocha)



Felipe J. González, regional representative of Mexico (fgonzale@cinvestav.mx)



International Society of Electrochemistry

**Dr. Klaus Mathwig**

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Date

30 June 2019

Subject

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

Dear Colleagues,

I am sending a brief report of about regional electrochemical activities and activities of the Regional Section since the start of my election as ISE Regional Representative of the Netherlands (term 2019-2021).

- Membership: As of June 2019, we have 61 ISE members affiliated with the Netherlands.
- Conferences: On 23<sup>rd</sup> November 2018, the Annual Symposium of the Working Group of Electrochemistry of the Royal Netherlands Chemical Society was held in Groningen. The program was focused on “Hyphenated Electrochemistry – Combining Electrochemical Methods with Complementary Techniques for Sensing Applications”. The meeting was organized by Dutch and Belgian electrochemists: KNCV electrochemistry committee Marc Koper (Leiden), Thomas Doneux (Brussels), Maarten Biesheuvel (Wetsus), Tom Breugelmans (Antwerp); Klaus Mathwig as organizer in Groningen. We had a successful meeting with 60 Dutch, Belgian as well as international participants.

The previous KNCV Electrochemistry Meeting in the Netherlands “Electroanalysis for a Better Life” had been very successfully organized in Delft in November 2016 by the previous Regional Representative Liza Rassaei.

- Planned Graduate School: An electrochemistry graduate school for students in the Netherlands is planned for 27–29 November 2019, the “1<sup>st</sup> ECCM Graduate school”. It is initiated and organized by Marc Koper (Leiden), Petra de Jongh (Utrecht), and Thijs de Groot (Eindhoven). The graduate school will take place in Eerbeek, the topics are “Electrochemical hydrogen production and CO<sub>2</sub> reduction”.

See also: <https://www.co2neutraalin2050.nl/graduateschool2019/>

To sponsor this graduate school, we had requested € 5.000 of the ISE regional funds.

With kind regards,

Dr. Klaus Mathwig, University of Groningen, ISE Regional Representative for the Netherlands



# Institute of Physical Chemistry Polish Academy of Sciences

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July 14, 2019

## Report of the ISE Regional Representative for Poland (2019)

### Membership

There are currently **109** ISE members affiliated with Polish institutions and companies.

### Activities

#### **ISE Sponsored Scientific Meetings:**

The 9th Workshop on Surface Modification for Chemical and Biochemical Sensing, SMCBS'2019, (<http://www.smcbs2019.pl>), 8-12 November 2019, Żelechów, Poland  
Chair: Włodzimierz Kutner

#### **Other Scientific Meetings:**

Electrochemistry Session upon the 62nd Scientific Meeting of the Polish Chemical Society 2019 (<https://zjazdptchem2019.ch.pw.edu.pl/>), 2-6 September 2019, Warsaw, Poland  
Chairs: Renata Bilewicz, Mieczysław Łapkowski

### Involvement of Polish institutions affiliated members in ISE

Martin Jönsson-Niedziółka – the ISE Publications Committee

### Future plans

Starting close collaboration with the Electrochemistry Section of the Polish Chemical Society.  
Organization of regional scientific meeting on electrochemistry.  
Encouraging graduate students to organize ISE Regional Student Meeting.  
Encouraging local Electrochemists, who do not joined ISE yet, to apply for ISE membership.

Your sincerely

Wojciech Nogala  
(Regional Representative for Poland)

## International Society of Electrochemistry Annual Report of Portugal – 2018/2019

16<sup>th</sup> July 2019

### 1. Membership

The number of active ISE members in Portugal is rather stable. There are currently 25 members (26 members in 2018). Portuguese Universities and Research Centres have recently hired a high number of young researchers under a Scientific Employment Stimulus Program. This is a good opportunity to contact those researchers that are working on Electrochemistry and related areas to introduce them to the ISE and attract them to forthcoming meetings.

Currently, the member interests on ISE divisions are as follows:

Division 1. Analytic electrochemistry (11 members)

Division 2. Bioelectrochemistry (7 members)

Division 3. Electrochemical Energy Conversion and Storage (9 members)

Division 4. Electrochemical Materials Science (15 members)

Division 5. Electrochemical Process Engineering and Technology (4 members)

Division 6. Molecular Electrochemistry (7 members)

Division 7. Physical Electrochemistry (2 members)

### 2. Activities

**2.1** Christopher Brett is Chair of the Publications Committee of ISE (2016-2020)

**2.2** Participation in Meetings

i) ISE Annual Meetings:

- *69th Annual Meeting of the International Society of Electrochemistry*, Bologna, Italy, 2-7 September 2018 (Portugal had 1 invited Lecture, 8 oral sessions and 10 Poster contributions; Christopher Brett was in the organization of Symposium 13).
- *70th Annual Meeting of the International Society of Electrochemistry*, Durban, South Africa, 4-9 August 2019 (there will be a Masterclass given by Ana M. Oliveira-Brett; 5 oral and 3 Poster contributions from Portugal).

ii) ISE Sponsored Meetings

- XL Meeting of the Specialized Group of Electrochemistry of the Royal Spanish Society XX Iberian Meeting of Electrochemistry, Huelva, Spain, 9-12 July 2019 (Plenary lesson by Cristina Oliveira)
- The International Workshop on Electrochemistry of Electroactive Materials (WEEM), Borovets, Bulgaria, 16-21 June 2019 (Portugal had 2 oral and 1 poster contribution)
- 11th International Symposium on Electrochemical Impedance Spectroscopy, 2-7 June 2019, Lège-Cap-Ferret, France (Portugal had 1 keynote and 3 oral contributions; 2 members were in the Scientific Committee)
- XXV International Symposium on Bioelectrochemistry and Bioenergetics 26-30 May 2019, Limerick, Ireland (Portugal had 2 oral and 2 Poster contributions).

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## **ISE Report from the Romanian Regional Representative prepared for the 70th Annual ISE Meeting in Durban, South Africa**

### ***Members***

Currently, Romania has 31 ISE members, increased by 2 members since the 69th Annual Meeting of ISE in Bologna, Italy. The efforts to recruit new members continue, especially targeting young scientists.

The interest of the Romanian members in the different divisions is given here:

- Division 1: Analytical Electrochemistry - 24 members (increased by 4 members)
- Division 2: Bioelectrochemistry – 18 members (increased by 2 members)
- Division 3: Electrochemical Energy Conversion and Storage – 3 members (constant)
- Division 4: Electrochemical Materials Science – 16 members (decreased by 1 member)
- Division 5: Electrochemical Process Engineering and Technology – 5 members (constant)
- Division 6: Molecular Electrochemistry – 10 members (increased by 1 member)
- Division 7 Physical Electrochemistry – 12 members (increased by 2 members)

### ***Activities***

Most of the activities related to electrochemistry are performed in research institutes, universities, and in enterprises having Physical Chemistry and Materials Science profiles.

The most numerous groups belong to: "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca (UMF, 8 members), University "Politehnica" of Bucharest (UPB, 7 members), National Institute of Materials Physics (IFIN, 6 members), Institute of Physical Chemistry "Ilie Murgulescu" of Romanian Academy, Bucharest (CCF, 4 members), Babes-Bolyai University (UBB, 3 members). Generally, their performed activities consist in:

- **Preparation and publication of papers in ISE journals** (El. Acta) or other ones which are specific to their R&D activities, including materials science, sensors/biosensors, medicine, renewable energy, etc.

- **Papers published in *Electrochimica Acta* (the ISI members are underlined):**

1. G.-O. Buica, I.-G. Lazar, L. Birzan, C. Lete, M. Prodana, M. Enachescu, V. Tecuceanu, A. B. Stoian, E.-M. Ungureanu, *Azulene-ethylenediaminetetraacetic acid: A versatile molecule for colorimetric and electrochemical sensors for metal ions*, *Electrochimica Acta*, 263, 382-390 (2018).
2. Alina Adumitrăchioaie, Mihaela Tertis, Maria Suci, Florin Graur, Cecilia Cristea, A novel immunosensor based on graphene-oxide/chitosan modified screen printed electrode for the detection of serotonin in various biological fluids, *Electrochimica acta*, 311(2019) 50-61.
3. Barsan, Madalina M., Matei, E, Enculescu, M, Costescu, R, Preda, N, **Enache, TA**, Enculescu, I, Diculescu, VC, Nanostructured palladium doped nickel electrodes for immobilization of oxidases through nickel nanoparticles, *ELECTROCHIMICA ACTA*, 2019, 315, 102-113, DOI: 10.1016/j.electacta.2019.04.143.

- **Other publications**

1. Cecilia Lete, Mariana Marin, Elena Maria Anghel, Loredana Preda, Cristian Matei, Stelian Lupu, *Sinusoidal voltage electrodeposition of PEDOT-Prussian blue*

- nanoparticles composite and its application to amperometric sensing of H<sub>2</sub>O<sub>2</sub> in human blood*, Materials Science and Engineering: C, 2019, vol. 102, pp. 661-669.
2. Vasilena Karabozhikova, Vessela Tsakova, Cecilia Lete, Mariana Marin, Stelian Lupu, *Poly(3,4-ethylenedioxythiophene)-modified electrodes for tryptophan voltammetric sensing*, Journal of Electroanalytical Chemistry, 2019, 113309.
  3. Anelya Nakova, Elena Maria Anghel, Cecilia Lete, Stelian Lupu, Tzvetanka Boijadjieva-Scherzer, Vessela Tsakova, *Graphite electrode-assisted electroless deposition of palladium in the absence and presence of poly(3,4-ethylenedioxythiophene) coatings*, Synthetic Metals, 2019, vol. 247, pp. 18-25.
  4. D. Ionita, F. Golgovici, A. Mazare, M. Badulescu, I. Demetrescu, G.-R. Pandelea-Dobrovicescu, *Corrosion and antibacterial characterization of Ag-DLC coating on a new CoCrNbMoZr dental alloy*, Materials and Corrosion Volume 69, Issue 10, October 2018, 1403-1411.
  5. Shan Sun, Peng Diao, Cuiyun Feng, Eleonora-Mihaela Ungureanu, Yi Tang, Bin Hu, Qing Hu, *Nickel-foam-supported  $\beta$ -Ni(OH)<sub>2</sub> as a green anodic catalyst for energy efficient electrooxidative degradation of azo-dye wastewater*, Jurnal RSC Advances, Volumul 8, 35, 19776-19785, 2018.
  6. Barsan, MM, **Enache, TA**, Preda, N, Stan, G, Apostol, NG, Matei, E, Kuncser, A, Diculescu, VC, *Direct Immobilization of Biomolecules through Magnetic Forces on Ni Electrodes via Ni Nanoparticles: Applications in Electrochemical Biosensors*, ACS APPLIED MATERIALS & INTERFACES, 2019, 11 (22) 19867-19877, DOI: 10.1021/acsami.9b04990
  7. **Enache, TA**, Matei, E, Diculescu, VC, *Electrochemical Sensor for Carbonyl Groups in Oxidized Proteins*, ANALYTICAL CHEMISTRY, 2019, 91 (3) 1920-1927, DOI: 10.1021/acs.analchem.8b03969
  8. Diculescu, VC, **Enache, TA**, *Voltammetric and mass spectrometry investigation of methionine oxidation*, JOURNAL OF ELECTROANALYTICAL CHEMISTRY, 2019, 834, 124-129, DOI: 10.1016/j.jelechem.2018.12.058
  9. G.-G. Vasile, G.-L. Arnold, G.-O. Buica, E. Diacu, E.-M. Ungureanu, C. Dinu, *Stripping Voltammetry on a new Modified Glassy Carbon Electrode for Lead Content Determination in Soft Water*, Revista de Chimie, vol 69, nr. 1, 21-26, 2018.
  10. Marian-Laurentiu TATU, Florian HARJA, Eleonora-Mihaela UNGUREANU, Emilian GEORGESCU, Marcel-Mirel POPA, *Electrochemical Characterization of Some Pyrrolo[1,2-c]Pyrimidine Derivatives*, REV.CHIM.(Bucharest) 69, No. 2, 498-506, 2018.
  11. C. Dinu, E.- M. Ungureanu, G. G. Vasile, L. Kim, I. Ionescu, C. Ene, M. Simion, *Soil and Vegetation Pollution from an Abandoned Mining Area Situated in Hunedoara County, Romania*, REV.CHIM.(Bucharest) 69 No. 1, 2018 p.14-20.
  12. M.-L. Tatu, F. Harja, E.-M. Ungureanu, E. Georgescu, L. Birzan, M.-M. Popa, *Electrochemical studies of two pyrrolo[1,2-c]pyrimidines*, Bulgarian Chemical Communications, Volume 50 Special Issue A (pp. 27-36) 2018.
  13. G.-G. Vasile, G.-L. Arnold, G.-O. Buica, E. Diacu, E.-M. Ungureanu, C. Dinu, *Stripping Voltammetry on a new Modified Glassy Carbon Electrode for Lead Content Determination in Soft Water*, REV. CHIM.(Bucharest), vol 69, nr. 1, 21-26, 2018.
  14. Amalia Stefaniu, Maria-Daniela Pop, Georgiana-Luiza Arnold, Liviu Birzan, Lucia Pintilie, Elena Diacu, Eleonora-Mihaela Ungureanu, *DFT calculations and electrochemical studies on azulene ligands for heavy metal ions detection using chemically modified electrodes*, Journal of Electrochemical Science and Engineering, Vol. 8, 1, pp 73-85, 2018/3/3.

15. I.G. Lazar, E. Diacu\*, G.-G. Vasile, E.- M Ungureanu, A. A. Ivanov, *Study of Analytical Parameters of a Differential Pulse Voltammetric Method using Chemically Modified Electrodes for Lead Analysis in Water*, REV. CHIM.(Bucharest), vol 1, 213, 2311-2314, 2018.
16. C Dinu, E.-M. Ungureanu, G. G. Vasile, L. Kim, L. F. Pascu M. Simion, *Evaluation of the Bioavailability and Pollution Indexes of Some Toxic Metals in Polluted Soils from an Abandoned Mining Area*, REV. CHIM.(Bucharest), vol 69, Issue: 11, 4141-4147, 2018.
17. Gabrielaa Geanina Vasile, Cristina Dinu, Lidia Kim, Anda Tenea, Marius Simion, Corina Ene, Claudiu Spinu, Eleonora-Mihaela Ungureanu, Daniel Manolache *Platinum Group Elements in Road Dust and Vegetation from Some European and National Roads with Intensive Car Traffic in Romania*, REV. CHIM.(Bucharest), vol 1, 1, 286-292, 2019.
18. AC Razus, L Birzan, M Cristea, V Tecuceanu, C Draghici, A Hanganu, M Maganu, L Pintilie, E.-M. Ungureanu, *New (azulen-1-ylidiazonyl)-heteroaromatic Compounds Containing 1,2,5-thiadiazol-3-yl Moieties*, REV. CHIM.(Bucharest), vol 70, 5, 1518-1529, 2019.

#### **- International research projects on electrochemistry**

1. *Border detection of illicit drugs and precursors by highly accurate electrochemical sensors-BORDERSENS* (coordinator : University of Antwerp, Belgium, Prof. Karolein de Wael, Partners: University of Leicester, UK, Universitat Autònoma de Barcelona, Spain and UMF Iuliu Hatieganu, Cluj-Napoca, Romania, local coordinator Prof. C. Cristea), European research grant under the H 2020 framework.
2. *ERA NET RUS PLUS – Plasmon Electrolight* (University of Antwerp, Prof. Karolein de Wael, Moscow State University, Prof. Larisa Tomilova and UMF Iuliu Hatieganu, Prof. C. Cristea), European research grant under the ERA NET framework.
3. ENACHE TA, *On-line measurement of laser-driven proton beams effect on human cells*, ONLINEBIORAD, PNCDI III, 2018-2019 (IFIN).
4. Bilateral research project Romania - Bulgaria 2017 – 2019, “Electrosynthesis and electroanalytical applications of nanocomposites materials based on conducting polymers”, in collaboration with Prof. Dr. DSC Vessela Tsakova from the Institute of Physical Chemistry Rotirslaw Kaischew of the Bulgarian Academy of Science, **Dr. Cecilia Lete (CCF)** and **Prof. Dr. Stelian Lupu (UPB)**
5. **H2020-MSCA-IF-797781-CALSOL** “Carbon based artificial leaf for solar fuel production” hosted at the 3Nano-SAE Research Centre, Șerban N. STAMATIN, University of Bucharest (UB)

#### **- Defended PhD theses in the field of Applied Electrochemistry:**

1. PhD Student Bianca Ciui, *Printed sensing devices for health applications*, defended the 12<sup>th</sup> of October 2018, thesis co-supervised by Prof. Dr. R. Sandulescu (UMF) and Professor Joe Wang (University of California- San Diego, USA)
2. Ana-Maria Sacara, *Adsorption and electrochemical detection of certain pollutants from aqueous solutions*, nov. 2018, supervisor Liana Muresan (UBB)

#### **- Chapters and monographies in international publishing house**

1. Anca Florea Bogdan Feier, Cecilia Cristea, Chapter 8 *In situ* analysis based on molecularly imprinted polymer electrochemical sensors, in book *MIP Synthesis*,



*Characteristics and Analytical Application*, Volume 86, 1st Edition, Ed. Elsevier, ISBN 9780444642660 (UMF).

2. Oana Hosu, Anca Florea, Cecilia Cristea, Robert Sandulescu, Chapter 6 Functionalized advanced hybrid materials for biosensing applications in book *Advanced Biosensors for Health Care: Materials and Applications*, Ed. Elsevier, June 2019, ISBN: 9780128157435, 171-207 (UMF).
3. Mihaela Tertiş, Luminița Fritea, Robert Sandulescu, Cecilia Cristea, Graphene and Graphene Nanocomposite Based Electrochemical Sensors in *Handbook of Graphene*, Vol. 6, (Editor Barbara Palys), Wiley-Scrivener Publishing LLC, June 2019, ISBN 978111946974-2 (UMF).
4. Bogdan-Cezar Iacob, Andreea Elena Bodoki, Bogdan Feier, Ede Bodoki, Radu Oprean, *Polimeri imprimați molecular - sisteme avansate de transport ale substanțelor active* în *MEDICAMENTELE SECOLULUI XXI ȘI TERAPII MODERNE*, editor Ovidiu Oniga, Editura Medicală Universitară "Iuliu Hațieganu" Cluj-Napoca, 2019, pag. 59 – 89, ISBN 978-973-693-896-2 (UMF).

#### **- Review articles on several aspects of electrochemistry:**

1. Ioana Tiuca Gug, Mihaela Tertis, Oana Hosu, Cecilia Cristea, Salivary biomarkers detection: Analytical and immunological methods overview, *Trends in Analytical Chemistry*, 113 (2019) 301-316 (UMF).

#### **- Organization of scientific meetings**

1. The 4<sup>th</sup> edition of the Workshop on “**Bioelectrochemistry in the Service of Life**”, 26-27 of November 2018, Cluj-Napoca, Romania organized by Analytical Chemistry Department, UMF Iuliu Hatieganu University the participation of Professor Adrian Covaci from Toxicological Center, University of Antwerp, Belgium (UMF).
2. Anniversary Symposium on “**Electroanalysis: from early beginning to future challenges**”, the 7<sup>th</sup> of December, organized by Analytical Chemistry Department, UMF Iuliu Hatieganu University during University days (UMF).

#### **- Participation of ISE members at ISE sponsored and other international meetings, respectively:**

1. 69th ISE Meeting, Bologna, Italy, 2-7 September 2018, 1 invited oral communication (UBB), 3 oral communications (1 from UMF, 2 from UPB – Liana ANICAI, E.-M. UNGUREANU), 8 poster presentations (8 from UMF, 1 from UPB, 1 from CCF- Dr. Cecilia Lete), 1 oral presentation PhD (student Arpad Szoke, UBB)
2. 7th International Conference on Materials and Applications for Sensors and Transducers, September 24-27, 2018, Bratislava, Slovakia, 1 poster (UBB)
3. WEEM Workshop, ISE sponsored meeting, June 2019, Borovets, Bulgaria, 2 poster contributions (Dr. Cecilia Lete and Prof. Dr. Stelian Lupu)
4. 25th Symposium of Bioelectrochemistry, 27-30 May 2019, Limerick, Ireland, 2 oral communications (UMF) and 8 posters (7, UMF, 1 IFIN)
5. 9<sup>th</sup> International Conference of the Chemical Societies of the South-Eastern European Countries (ICOSECS9) «*Chemistry a Nature Challenger*», May 8 to 11<sup>th</sup>, 2019, Targoviste, Romania, 2 oral (Veronica Anastasoae, Eleonora-Mihaela Ungureanu) presentations (UPB), 2 posters (UPB)

6. 7th Regional Symposium on Electrochemistry for South-East Europe, 27-30 May 2019, Split, Croatia (RSE-SEE Split), 1 oral presentation PhD (UPB, student Sabrina Patricia Rosoiu, from which a third prize for UPB - Sabrina Patricia Rosoiu), 5 posters (3 from UBB, 2 from UPB, from which a first prize for UPB -BUICA G.O.), 1 oral presentation at RSE-SEE Split, May 2019 (1 from UBB, 2 from UPB, Liana ANICAI, E.-M. UNGUREANU)
7. Training School under COST Action CA15107, Bucharest, Romania, 4-7 June 2019 - "Multi-functional Nano-Carbon Composite Materials Network (MultiComp)" 3 posters, 1 plenary lecture (Liana Anicai), "Practical Aspects Regarding the Electrodeposition of Metal and Alloy Composites with Carbon Nanomaterials using ILs based Electrolytes" (UPB)
8. SMT33 - 33rd International Conference on Surface Modification Technologies, Napoli, Italy, 25-29 June, 2019, Special Session of the European Academy of Surface Technology, 1 poster (UPB): „Electrodeposition of metal and alloy composites with carbon nanomaterials coatings involving deep eutectic solvents”, Liana Anicai, Aurora Petica, Stefania Costovici, Aida G. Pantazi, Sabrina Rosoiu, Anca Cojocaru, Marius Enachescu, Teodor Visan (UPB).
9. Journées d'Electrochimie, 1-4 July 2019 Toulouse, France, 2 poster presentations (UMF).
10. 70<sup>th</sup> ISE, Durban, South Africa, 4-9 August 2019, 1 oral (Şerban N. STAMATIN) presentation, 2 posters (E.-M. Ungureanu, V. Anastasoiaie).

**- Participation of ISE members at national scientific events**

1. ERASMUS+ Agreement in the field 0531 Chemistry: M. Maxime Blondel, presentation of the educational programmes of the University of Franche-Comté, Besancon, (France) at the Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, November 20, 2018. <http://www.chimie.upb.ro/evenimente/2018-11-20> (UPB)
2. The XXXV-th **Chemistry National Conference** - Caciulata, 02-05 October 2018, 1 poster (Liana Muresan)

**- Review article on several aspects of electrochemistry:**

1. Ana-Maria Sacara, Federica Pitzalis, Andrea Salis, Graziella Liana Turdean, **Liana Maria Muresan**, Glassy carbon electrodes modified with ordered mesoporous silica for cadmium ions electrochemical detection, **2019**, *ACS Omega*, 4, 1, 1410-1415 (UBB).
2. Ana-Maria Săcară, Cerasella Liliana Indolean, Vasile Mircea Cristea, **Liana Maria Mureşan**, **2019**, Application of adaptive neuro-fuzzy interference system on biosorption of malachite green using fir (*Abies nordmanniana*) cones biomass, *Chem. Eng. Commun.*, DOI: 10.1080/00986445.2018.1555531, (UBB).
3. Gabriella Szabó, Emőke Albert, Júlia Both, Lenke Kócs, György Sáfrán, Árpád Szőke, Zoltán Hórvölgyi, **Liana Maria Mureşan**, **2019**, Mesoporous silica layers deposited on zinc substrates. Influence of embedded inhibitors on their corrosion behavior, *Surf. & Interf.*, 15, 2016-223, (UBB).
4. Árpád Ferenc Szőke, Gabriella Stefánia Szabó, Zoltán Hórvölgyi, Emőke Albert, **Liana Maria Muresan**, **2019**, Eco-friendly Indigo Carmine-loaded Chitosan coatings for improved anti-corrosion properties of zinc substrates, *Carbohydrates Polymers*, 215, 63-72, (UBB).

5. Piyanut Pinyou, **Liana Maria Muresan**, Thierry Noguer, Vincent Blay, Enzyme-modified Electrodes for Biosensors and Biofuel Cells, **2019**, *Materials Horizons*, DOI: 10.1039/C9MH00013E. (UBB).
6. Árpád Ferenc Szőke, Gabriella Stefánia Szabó, Zalán Simó, Zoltán Hórvölgyi, Emőke Albert, Attila Gergely Végh, László Zimányi, **Liana Maria Muresan**, **2019**, *European Polymer Journal* 118 (2019) 205–212, (UBB).
7. Arpad Szoke, Zoltan Zsebe, Graziella Liana Turdean, **Liana Maria Muresan**, **2019**, Ascorbic acid determination with a composite nanostructured electrode based on electrochemically reduced graphene oxide and gold nanoparticles, *Electrocatalysis*, doi.org/10.1007/s12678-019-00543-4, (UBB).

#### **Other relevant data**

1. **Elsevier Poster Award** at the XXV International Symposium on Bioelectrochemistry and Bioenergetics of the Bioelectrochemical Society (BES 2019) conference for the poster entitled "Aptamer-based electrochemical ferrocene-labeled biosensor for tetracyclines detection", authors: **O. Hosu**, G. Melinte, R. Sandulescu, C. Cristea, 26-30 May 2019, Limerick, Ireland (UMF).
2. **ISE Travel Award** for the 69th Annual Meeting of the International Society of Electrochemistry for the paper "Nanocomposite hybrid materials based on carbon nanotubes and poly(methylene blue) films synthesized in deep eutectic solvents for biosensor development", authors: **O. Hosu**, M.M. Barsan, C. Cristea, R. Săndulescu, C.M.A. Brett, 2-7 September 2018, Bologna, Italy (UMF).
3. Postdoctoral research stage of **Dr. Juan Jose Garcia Guzman** from the University of Cadiz, Spain, from June 1 to July 23, 2019, research topic: "*Development of electrochemical sensors based on composite materials using sinusoidal voltage and current methods*" in UPB under the supervision of Prof. Dr. Stelian Lupu from the Department of Analytical Chemistry and Environmental Engineering.
4. Scientific visits under the frame of 2 M Era Net projects between electrochemical groups of UPB-CSSNT and University of Porto (Prof. A.F. Silva), IST Lisbon (Prof. Fatima Montemor) in 2018.
5. Enrollment of 1 PhD student to be trained in electrochemical topics (surface coatings involving ionic liquid electrolytes, corrosion assessment at micro and nano-scale) and exchange of PhD students for secondments from other partners (i.e. TU Delft, TU Jonkoping) through H2020-MSCA-ITN-2017 project "*Advanced integrative solutions to Corrosion problems beyond micro-scale: towards long-term durability of miniaturized Biomedical, Electronic and Energy systems — mCBEEs*", the Romanian project leader and many of the key team members are ISE members (IFIN).
6. Romanian ISE members acted as reviewers for ISE and other journals related to electrochemistry.

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## REPORT 2018-2019 of the ISE section in Russia

### Membership

Within the period of 2011-2018 the Russian section of ISE consisted of 45 to 55 members. The actual number is 51.

### Activities

Main research activities of the section in the period from August 2018 till July 2019 were in the area of pure and applied electrochemistry.

M. A. Vorotyntsev is actually a vice-chair of Division 4 of ISE, a member of the Committee in charge of awarding the ISE Prize for Electrochemical Materials Science as well as the Deputy Editor-in-Chief of the Russ. J. Electrochem. and Elektrokimiya.

A. A. Karyakin is an Associate Editor for bioelectrochemistry of Electrochem. Commun.

G. A. Tsirlina is a member of the Editorial Board of J. Electroanal. Chem. and a Topical Editor of J. Solid State Electrochem.

O. A. Petrii is a member of the Editorial Board of J. Solid State Electrochem.

A. D. Davydov is a member of the Editorial Board of Corrosion Science.

M. A. Vorotyntsev has been Guest Editor of special issue "ISE-2017" of Electrochimica Acta. He is actually Guest Editor of special issue "ISE-2018" of Electrochimica Acta.

V. V. Kondratiev and R. Holze (Germany) served as Guest Editors of special issue "80th V. V. Malev anniversary" to be published in journals Russ. J. Electrochem. and Elektrokimiya, vol. 55 (n° 11), 2019. The special issue includes 12 papers, 4 of which were obtained from the abroad.

Y.V. Pleskov is the Chair of the Frumkin Memorial Medal Award Committee.

A number of Russian ISE members are actually members of the Editorial Board of the Russ. J. Electrochem. as well as serve as reviewers for Electrochimica Acta, Sensors and Actuators B Chemical, Electroanalysis, J. Electroanalytical Chemistry, J. Solid State Electrochemistry, Scientific Reports, Journal of Applied Electrochemistry, CHEMSUSCHEM and other international electrochemical journals.

Participation of members of the Russian section in the 69th Annual ISE Meeting-2018 in Bologna, Italy was rather broad. M. A. Vorotyntsev was serving as an Organizer of Symposium 10 "Materials for and from Electrochemistry: State of the Art and Future Trends" within this ISE Meeting.

Due to territorial remoteness the participation of members of the Russian section in the 70th Annual ISE Meeting-2019 in Durban is slightly reduced. Nevertheless, the scientific audience of Russia is greatly interested in this event. Komkova M.A. received the Travel Award for young electrochemists.

M. A. Vorotyntsev is a member of the Organizing Committee of symposium "Electroactive materials: polymers, inorganic solids, nanocomposites and hybrid materials" within the 71<sup>st</sup> Annual ISE Meeting-2020 in Belgrad.

Russian electrochemists participated actively in the ISE-sponsored event: International Workshop on Electrochemistry of Electroactive Materials (WEEM-2019), Borovets, Bulgaria, June 17-21, 2019. Its scientific program was organized by the Scientific Committee of WEEM composed of 18 top experts from various countries (ISE members), V. Tsakova and M.A. Vorotyntsev being the Chairpersons of the Organizing Committee. Representatives of Russia delivered the maximal

number (10) of keynote and invited oral presentations (from 50 lectures as a whole) among the electrochemists of 21 countries of Europe, Asia and North America.

The main event for Russian electrochemists within this period was XV International conference "Topical Problems of Energy Conversion in Lithium Electrochemical Systems" (Saint-Petersburg, Russia, September 2018) and its satellite event Young scientists' school on electrochemical energy storage. Another international conference related to electrochemistry took place in Sochi ("Ion Transport in Organic and Inorganic Membranes", June 2018).

ISE members of the Institute for Problems of Chemical Physics RAS (IPCP RAS, Chernogolovka, Moscow region), of the M. V. Lomonosov Moscow State University, of the A. N. Frumkin Institute of Physical Chemistry and Electrochemistry (IPCE RAS, Moscow), of the D. I. Mendeleev University of Chemical Technology of Russia (MUCTR, Moscow) and of the Institute of General and Inorganic Chemistry (IGIC RAS, Moscow) put a lot of efforts to participate, organize and/or realize several national and international events and conferences:

- A) have been participating actively in 2nd International Conference on Catalysis and Chemical Engineering (CCE-2018), February 19-21, 2018, Paris, France.
- B) have been participating in preparation of several national and international conferences:
  - International Conference "Ion transport in organic and inorganic membranes". Sochi, Russia, May 2020;
  - XV International conference "Topical Problems of Energy Conversion in Lithium Electrochemical Systems", Russia, September 2020;
  - 7<sup>th</sup> National conference "Fuel Cells and Energy Devices on their Basis", Suzdal, Russia, June 2020.
  - Young scientists' school on electrochemical energy storage, Suzdal, Russia, September 2020.
- C) have been participating in several international and national electrochemical conferences within the period:
  - XIX international congress "Electrochemistry of the organic compounds", ECHOS-2018, 3-6 October 2018, Novocherkassk, Russia
  - VIII international congress "Physical-chemical processes in condensed matter and on the phase borders", Voronezh, 8-11 October, 2018
  - The IV interdisciplinary scientific forum with international participation "New materials and advanced technologies", Russia, November 27-30, 2018
  - 3rd International conference of young scientists "Topical problems of modern electrochemistry and electrochemical materials science", Moscow region, Vozdvizhenskoe, Russia, 23-26 September 2018
  - 14th Conference with international participation "Physical and chemical problems of renewable energy", Chernogolovka, Moscow region, Russia, September 13-16, 2018
  - The 14th International Conference "Fundamental Problems of Solid State Ionics". Chernogolovka, September 9–13, 2018

Young electrochemists took active part in the specialized Youth Forum "Lomonosov-2019" (only for university and PhD students), which took place in Moscow, April 2019.

Each year the electrochemistry chair of the Moscow State University organizes in October the A. N. Frumkin Hearings (chaired in 2018 by E. V. Antipov) with several invited lectures devoted to various areas of electrochemistry and related disciplines, including invitations of top Russian and foreign electrochemists.

During the period two Russian ISE members (V.E.Guterman and S.V. Belenov) created small innovative enterprise LLC PROMETHEY RD (PROMETHEUS R&D), the first commercial manufacturer of electrocatalysts in Russia for low-temperature fuel cells. The website of this company: <https://www.prometheusrd.com/?lang=en>

Anatoly E. Antipov  
ISE Regional Representative - Russia



## ISE Regional Representative of Serbia - 2018/2019 Report

Currently there are 39 ISE members from Serbia. The trend of increasing number of registered ISE members in the last couple of years is continuing, as a result of the fact that Serbia will host ISE Annual Meeting in 2020. This is the largest number of members since Serbia is the independent ISE region, and is expected to rise further in the next two years.

### ACTIVITIES

1. A series of activities of ISE members from Serbia (primarily members of the Organizing Committee and the Local Organizational Committee of the 71<sup>st</sup> Annual Meeting, 2020 in Belgrade) on the preparation of the proposal of the First Announcement, Presentation of Belgrade as host at the 69<sup>th</sup> ISE Meeting in Bologna, activities on defining the symposia and appointment of the Symposium Organizers within the 71<sup>st</sup> Annual Meeting, the preparation of the brochure of the 71<sup>st</sup> Annual Meeting 2020 in Belgrade.....
2. **69<sup>th</sup> ISE AM in Bologna, Italy**, ISE members from Serbia participated with 5 poster presentations, co-chair of the 71<sup>st</sup> ISE AM Jelena Bajat announced this meeting at General Assembly and at the meeting of the ISE Division Officers.
3. **4<sup>th</sup> COST MP1407 E-Minds Workshop**, 13-15. February, Milano, Italy  
Serbian ISE members participated with 2 oral presentations, and 4 invited talks:
  - **Mila N. Krstajic Pajic**, Faculty of Technology and Metallurgy, University of Belgrade, *Noble metal nanocatalysts: synergetic effect of nanoparticle shape and composition on their electrocatalytic performance*
  - **Mihael Bučko**, Military Academy Belgrade, The study of metal corrosion in deep eutectic solvent by SVET
  - **Jelena Bajat**, Faculty of Technology and Metallurgy, University of Belgrade, *The electrochemical role of water in deep eutectic solvent based on choline chloride and urea*
  - **Uroš Lačnjevac**, Institute for Multidisciplinary research, Univeristy of Belgrade, *Proton-intercalated anatase TiO<sub>2</sub> nanotube arrays decorated with Ir nanoparticles as novel electrocatalysts for the hydrogen evolution reaction*
4. **7<sup>th</sup> Regional Symposium on Electrochemistry of South-East Europe**, 27-30 May 2019, Split, Croatia, organized by the Association of South-East European Electrochemists (ASEEE) ([www.aseee.eu](http://www.aseee.eu)) with Serbian ISE members in the Scientific and Organizational Committees. Serbian ISE members had 12 poster presentations, and two key-note lectures:
  - **Igor A. Pašti** (Faculty of Physical Chemistry, Belgrade University, Serbia) *Computationally driven development of novel electrocatalysts*
  - **Nebojša D. Nikolić** (ICTM-Department of Electrochemistry, University of Belgrade, Serbia) *Formation of disperse deposits by electrolysis: morphology, structure and mechanis*
5. **56<sup>th</sup> Meeting of the Serbian Chemical Society**, June 7-8, 2019, Niš Serbia (<https://www.shd.org.rs/index.php/56shd>): 2 Plenary Lectures, 6 Invited Lectures and 93 contributions, of which 14 oral and 79 poster presentations., including three oral and four posters from the field of electrochemistry. ISE Regional representative of Serbia, Aleksandar Dekanski give an Invited lecture dedicated to the International Year of the Periodic System – **150 years of the Periodic system of elements**.
6. **Meetings of the Electrochemical Division of the Serbian Chemical Society**

### August 25, 2018

A series of lectures dedicated to academician Radoslav Adžić, Emeritus senior scientist, on the occasion of his retirement, as a former Director of the Departmen of Electrochemistry, Institute of Chemistry, Technology and Metallurgy, University of Belgrade, and an esteemed Electrochemist.

- Milka Avramov-Ivić, ICTM University of Belgrade: *Prvi deo: Elektroanalitika i elektrodegradacija odabranih farmaceutskih jedinjenja, pesticida i organskih boja Drugi deo: Računarski zasnovan sistem za UV –VIS spektroskopsku dijagnostiku malignih bolesti analizom pleuralnih izliva i ascita*

- Nebojša Marinković, Columbia University, New York, USA, *Infracrvena spektroskopija i elektrohemijski sistemi / Infrared spectroscopy and electrochemical systems*
- Svetlana Štrbac, ICTM University of Belgrade, *Elektrokataliza na bimetalnim površinama / Electrocatalysis on bimetallic surfaces*
- Dušan Tripković, ICTM University of Belgrade, *Uticaj termičkog tretmana Pt elektroda na bazi tankih filmova na njihove katalitičke osobine / Influence of thermal treatment of thin film based Pt electrodes on their catalytic properties*
- Mila Krstajić Pajić, University of Belgrade, *Nanočestice Pt kontrolisanog oblika za oksidaciju malih organskih molekula / Shape-controlled Pt nanoparticles for electrooxidation of small organic molecules*

#### September 12, 2018

Lecture by prof. dr Radoslav Adžić, Emeritus senior scientist, Brookhaven National Laboratory, USA, *Elektrokatalizatori za gorivne ćelije na bazi jednog atomskog sloja platine / Electrocatalysts for fuel cells based on platinum monolayer*

#### October 4, 2018.

Joint meeting of the Electrochemical section of the Serbian Chemical Society and the Local organisation committee of the 71<sup>st</sup> ISE AM on the future steps in ISE AM organisation

#### November 23, 2018

Joint meeting of the Electrochemical section of the Serbian Chemical Society and the Electrochemical section of the Society of Physical Chemistry of Serbia with a lecture: Prof. Dr. **Igor Pašti**, Faculty of Physical Chemistry, University of Belgrade: *Savremeni pravci u istraživanju materijala za elektrohemijsku konverziju energije / Modern directions in materials investigation for electrochemical energy conversion*

#### December 7, 2018

Lecture: dr **Milica Petrović**, Faculty of Natural Sciences, University of Niš, *Uticaj elektrohemijskih parametara procesa i vrste radne elektrode na karakteristike bizmut (III)-oksida dobijenog elektrodepozicijom i termičkom oksidacijom / The influence of electrochemical process parameters and the selection of working electrode on the characteristics of bysmuth(III)-oxide*

#### February 1, 2019

Organization issues of Despić & Dražić Symposium that will take place 25-28 August, 2020 in Novi Sad, as a satellite of 71<sup>st</sup> ISE AM

#### February 11, 2019

Election of new President and Secretary of the Electrochemical Section;

Lecture: **Stanko Branković**, Full professor, Cullen College of Engineering, University of Houston, *Metal Deposition Assisted by UPD Monolayers-Fundamentals and Applications*

#### June 19, 2019

Lecture: **Gyongy Vastag**, University of Novi Sad, *Inhibition of metal corrosion – traditional and modern approaches*

**7. Promotion of Electrochemistry in Serbia** – Serbian ISE members have put their efforts into pronouncing the year 2020 as a year of Electrochemistry in Serbia, by relevant scientific institutions, due to 71<sup>st</sup> ISE AM taking place in Belgrade. Accordingly, they have applied and have been granted with two projects (funded by the Centre for Science Promotion) for the next year. In that light, several events will be organized throughout the year in Belgrade and other cities in Serbia, such as interactive workshops for high-school pupils and a series of scientifically popular lectures for the broader audience, all with the focus on Electrochemistry in order to make it more familiar and recognizable. In addition, an Exhibition with antique electrochemical equipment used by esteemed Serbian electrochemists will be organized in the Gallery of the Serbian Academy of Sciences and Arts during the 71<sup>st</sup> ISE AM.



Aleksandar Dekanski

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05 July 2019

**Regional representative Report 2019- South Africa**  
*presented at*  
**70<sup>th</sup> Annual meeting of the International Society of Electrochemistry**  
**(ISE), 4-9 August 2019, Durban South Africa**

This year South Africa is proud to host the 70<sup>th</sup> Annual meeting of the ISE, in Durban from 04-09<sup>th</sup> August 2019. The local organizing committee, under the leadership of Prof K Ozoemena has worked very hard together with the ISE head office, to ensure efficient and successful logistical arrangements are made to host the international electrochemistry community on this occasion. The planning and execution of duties has progressed smoothly and we anticipate a very good support (current estimate 900 delegates) at the 70<sup>th</sup> celebratory year of this meeting.

A large conference grant sponsorship (National Research Foundation (NRF), South Africa) has ensured the necessary support to bring African scholars from Morocco, Tunisia, Egypt, Uganda, Namibia, Kenya, Nigeria and Ethiopia to participate in the 70<sup>th</sup> ISE celebration as well as a large number of postgraduate students and scholars registered at South African universities.

**Membership:** Membership for South Africa has remained steady over the years at around 40-50 but we are confident that this year (2019) we will record a record high for representation of South African and African delegates.

Through the structures of the South African Chemical Institute (SACI) two very special satellite meetings will take place before and after the 70<sup>th</sup> Annual ISE meeting, as follows:

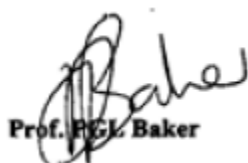
**Pre-conference satellite meeting:** 31 July – 2 August 2019; KwaMaritane Bush Lodge, Pilanesberg National Park, South Africa,

The International Symposium on “Energy Storage and Industry 4.0: Challenges and Prospects” (ENSTIN 2019) will provide an excellent opportunity for research scientists, engineers and entrepreneurs to visit the beautiful South African Sun City and share their knowledge with energy storage stakeholders (such as Independent Power Producers (IPPs), Original Equipment Manufacturers (OEMs), government & policy makers, utility, and entrepreneurs) on the current technical challenges and prospects for commercialization of advanced batteries and “beyond lithium-ion battery” technologies. This satellite meeting will provide ISE delegates an opportunity to explore the beauty and wildlife of one of South Africa’s most famous National Parks.

**Post-conference satellite meeting:** 11-14<sup>th</sup> August 2019, University of the Western Cape South Africa.

The 5th International Symposium on Electrochemistry under the theme “Electrochemistry at Nanostructured Interfaces” will be hosted by SensorLab research group (Iwuoha/Baker) at the University of the Western Cape (Bellville, South Africa), from 11-14th August 2019. The programme features themes such as nanostructured interfaces in heterogeneous and homogeneous catalysis, in energy transforming technologies (e.g. batteries, fuel cells, solar cells), electrochemical biosensors, diagnostic platforms in bio-electrochemistry, nano-electrochemical imaging techniques and spectroscopy and many more. We are very honoured to have the ISE president Prof ZQ Tian, as one of the plenary speakers at this symposium in the beautiful city of Cape Town.

Yours sincerely,



Prof. PGL Baker

.....  
**PROF PGL BAKER**

Regional Representative South Africa

Member: Local Organising committee (ISE, Durban)

Chemistry department, University of the Western Cape

## Report from Spain

### Members

According to the Member Directory of ISE, the number of members from Spain is currently 151, belonging to Universities, Research Institutes of CSIC, Technological centers and Spin-offs. The number has increased more than 25% from last year.

### Activities

- Organization of the 25th Topical Meeting of the ISE, "New electrochemical processes for energy and the environment" which took place in Toledo, Spain from May 12<sup>th</sup> to 15<sup>th</sup>, 2019. Profs. Manuel Rodrigo and Enrique Herrero acted as chairs of the organizing committee. More than 350 persons attended the meeting. During the meeting, 4 plenary lectures, more than 170 oral and invited talks and more than 50 posters were presented.

- The ISE-sponsored *XL Meeting of the Electrochemistry Group of the Royal Spanish Society of Chemistry* attended by more than 150 people, was hold in Madrid (Spain) between July 10<sup>th</sup> and 12<sup>th</sup> 2019.

-During the Meeting, 7 PhD students defended their Thesis Plan and 17 Master students presented their Master Research work in Electrochemistry. The registration fees of all these students were sponsored by the ISE-Spanish Group.

- The interuniversity master degree on electrochemistry - "*Electrochemistry: Science and Technology*" had his sixth edition. 17 students registered for this edition of the master degree. The compulsory part of the degree took place in Alicante during January and February 2019. It is coordinated by Prof. Vicente Montiel (University of Alicante) and it is offered in 9 different Spanish universities

- 7 new students entered during the 2016/2017 academic year in the interuniversity PhD program on electrochemistry - "*Electrochemistry: Science and Technology*". The program is offered in 11 Spanish Universities and has the certification of excellence from the Spanish Ministry of Education.



July 16<sup>th</sup>, 2018

Enrique Herrero

Spain ISE Regional Representative

Universidad de Alicante.



Universitat d'Alacant  
Universidad de Alicante

Instituto Universitario de Electroquímica  
Institut Universitari d'Electroquímica



## **ISE Annual report 2019 (Sweden) for the RR meeting in Durban 2019.**

### **Membership:**

The number of Swedish members 2018 is quite stable. In June 2018 we had 43 members, which is a slight decrease from last year's 46 members. Largest group of members are active at Uppsala University followed by KTH Royal University of Technology, Stockholm University, Chalmers University of Technology, and Göteborg University but there are also members from Lund, Malmö, Linköping and Umeå Universities. In addition, several electrochemists from Swedish industry are participating. Participation in Division 3 and 4 dominates but there are Swedish members in all divisions.

### **Activities:**

At the ISE annual meeting in Bologna 2018, 17 oral presentations and 9 posters have a Swedish affiliation. Dr Maria Cuartero Botia, postdoc at Department of Chemistry, KTH Royal institute of technology was awarded 2018: Early Career Analytical Electrochemistry Prize of ISE Division 1. In Durban (2019) Swedish members contribute with 9 talks and 3 posters. No ISE sponsored meetings took place in Sweden 2018, but an application for a topical meeting 2022 has been sent in.

As everywhere else the battery field is growing also in Sweden. The battery producer Northvolt are building up research facilities and a megafactory in Sweden. In addition, and connected, a national competence centre on batteries was recently granted and will be started 2020, headed by Prof Kristina Edström, Uppsala University, which will be linked to the European Battery Alliance.

Rakel Wreland Lindström, PhD  
Regional representative ISE Sweden

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Bern, 16/07/2019

#### **Membership**

The Swiss section of the ISE has currently **58 active members**. The number of ISE members remains on a stable level with only minor fluctuations over the last couple of years. The Swiss members are active in all divisions of the ISE.

#### **Activities**

In 2018 the Swiss ISE section organized a satellite meeting of the 69<sup>th</sup> annual ISE meeting in Bologna. This International Summer School took place from August 27<sup>th</sup> to August 31<sup>st</sup> in Villars-sur-Ollons (Switzerland). The topic of this symposium was on ***Power-to-X: Fundamentals and Applications of Modern Electrosynthesis*** (<https://power2x.dcb.unibe.ch/index.shtml>).

70 people from industry and academia participated in this International Summer School. In the focus of the lectures and discussion were various topics related to the so-called 'energy transition' (Energiewende) including CO<sub>2</sub> capture, CO<sub>2</sub> conversion and alternative concepts of storing the surplus of renewable electricity in form of value added chemicals.

With sincere regards,

Peter Broekmann



Regional Representative Meeting  
ISE Annual Meeting 2019, Durban, South Africa

Annual ISE Regional Report of Taiwan

June 30, 2019

Regional Representation of Taiwan has been established in the end of 2014. ISE active members from Taiwan increase dramatically from less than 10 people in 2013 to more than 200 members by the date of reporting. In 2019, several local activities have been engaged or planned. They are summarized below.

In January, we prepared the Call for Papers for the 26<sup>th</sup> ISE Topical Meeting (ISE TM2020) and submitted the ready-to-print file to the ISE Administration and Conference Organization Office. “Metal Deposition for Semiconductor and Green Energy” is the theme of the ISE TM2020, which will be held in Tainan, Taiwan, on 29 March – 01 April, 2020. The targeted number of participants in this meeting is 150-250 people. The venue will be in the International Conference Hall of National Cheng Kung University in Tainan, Taiwan. The program of the ISE TM2020 comprises three important topics for metal deposition: semiconductors, energy conversion, and energy storage. The members of the organization committee and local organizing committee and the coordinators of the program sessions have been assigned and are now involved in organizing the meeting.

The 2019 Germany-Taiwan Joint Workshop on Advanced Lithium-Ion Battery Technologies will be held in Braunschweig, Germany, on 30 September – 02 October, 2019. The cooperation between the Ministry of Science and Technology (MOST), Taiwan, and the German Federal Ministry of Education and Research (BMBF) has launched the Taiwan-Germany Joint Research Program on Battery Technologies, which aims not merely to improve the performance and safety of lithium-ion batteries for use in renewable energy systems and electric vehicles (or scooters) but to make Taiwan a green-energy homeland. Several universities and research institutes in Taiwan and Germany have cooperated to develop new materials for integration into

lithium-ion batteries.

A two-day electrochemical workshop will be taking place on 5–6 September, 2019 at National Taiwan University of Science & Technology in Taiwan. The workshop comprises 11 lectures to cover electrochemistry fundamentals and major applications, such as energy conversion & storage, analytics, sensors, ..., etc. The audience comprises of young post graduate students and industrial professionals, especially R&D teams from companies located in neighboring science parks. The fundamental courses emphasize on the RDE/CV and EIS impedance techniques to enhance the understanding of practical experimental skills. In addition, a special technical session about lithium ion batteries is designed to demonstrate new material development, production, and applications as well as possible academic-industrial cooperation.

The 10<sup>th</sup> Asian Conference on Electrochemical Power Sources (ACEPS10-2019) will be held in Kaohsiung, Taiwan, on 24–27 November, 2019. The conference is anticipated to include 148 of plenary (4), keynote (36), and invited (108) speeches, given by international (mostly Asian) and local scholars from various institutions. More than 100 oral speeches will be accepted and more than 100 poster presentations are expected. The ACEPS series has been a prestigious and renowned arena for gathering international scholars and experts to share experiences and exchange views on Electrochemical Power Sources. The program of the ACEPS10-2019 covers important topics: basic electrochemistry, batteries, capacitors & fast charging devices, fuel cells, and solar cells.

These summarize electrochemistry related events in Taiwan in 2019.

Sincerely,

Prof. Hsisheng Teng

ISE Taiwan Representative

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September 4, 2019

## 2018-2019 ISE Report for Turkey

### Membership

As of June 2019, active membership for Turkey was 24. Membership is low compare to increasing country activities on battery research.

### Activities

The following conferences taking place in 2018 and 2019:

International Hydrogen Technologies Congress (IHTEC 2018-2019) has taken place (<http://ihtec2019.org/>).

4th International Symposium on Materials for Energy Storage and Conversion (mESC-IS 2019) is to take place 11-13 September 2019 along with electrochemistry summer school (<https://mesc-its.org/>).

ISE sponsored Electrochemistry Conference 2019 will take place at the end of September 2019 (<http://electrochem2019.org/en/>). This will give opportunity to local electrochemists to interact with worldly known invited speakers.

Euroanalysis 2019 conference will take place in İstanbul (<http://euroanalysis2019.com/>)

Members have actively participated in the Electrochemical Society, ISE and other electrochemistry related meetings. In addition, many small local symposia are organized by ISE members on electrochemistry subjects.

National e-mail communication list was expanded to reach more people involved in electrochemistry research.

Sincerely,

Suha Yazıcı

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08/07/2019

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

### Membership

The membership currently stands at 201 members (200 at this time last year, 190 the year before).

### Activities

The following ISE sponsored meetings took place:

- SCI electrochemistry postgraduate conference, 31 May 2019, Newcastle University, 35 participants.  
<https://conferences.ncl.ac.uk/sci-epc2019/>
- Electrochem 2018, Lancaster University, 16<sup>th</sup>-18<sup>th</sup> September 2018, 180 participants.  
<http://wp.lancs.ac.uk/electrochem/>

### Involvement of UK members in ISE

The following members are currently involved in the ISE organisation or have recently received ISE prizes:

- Angel Cuesta: chair elect division 7
- Phil Bartlett: ISE immediate past president, 2018-2020
- Richard Compton: member of ISE Fellows Nominating Committee (2015-2019)
- Rob Hillman, Editor in Chief of Electrochimica Acta since 2014
- Tim Albrecht: Secretary General for 2018-2020

Yours sincerely



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June 25, 2019

## **ISE Annual Report Meeting 2019 - USA**

### **Memberships**

As of today, there are 294 members from the United States, which is down from 338 members last year, but still up from the 190s before the Providence, Rhode Island meeting. The previous peak (338) in the number of members is likely due to the annual meeting in Providence, Rhode Island (there were 258 abstract submissions from the US). We have worked to retain members on an ongoing basis by directly emailing colleagues and talking to them at ISE and ECS meetings. Also, by co-sponsoring meetings, such as the 2018 Fuel Cells Gordon Research Conference and ELKIN 2019 this year, as well as planning a Topical Meeting in 2020.

### **Activities**

1. Co-sponsoring of meetings. We have co-sponsored two meetings in the USA: ELKIN 2019 and the 2018 Fuel Cells Gordon Research Conference. 13th International Electrokinetics Symposium was organized at MIT on June 12-14, 2019. The Fuel Cells Gordon Conference took place on July 28-August 3, 2018 in Rhode Island and was oversubscribed. The focus of the meeting was on the next generation of durable, high-performance components and fuel cells, including modeling, diagnostics, and materials development advancements.

2. 2020 Topical Meeting – The US group put in an application for a 2020 Topical Meeting in the United States focused on Electroanalytical Chemistry and Bioelectroanalysis. The meeting will be held in May 2020 at Salt Lake City, UT. This application was approved and the contract was recently signed with the venue University of Utah Guest House and Conference Center.

Shelley D. Minter, PhD, Regional Representative for the USA  
USTAR Professor of Chemistry and Materials Science and Engineering, University of Utah