



International Society of Electrochemistry

associated organization of IUPAC

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Dear friends and colleagues, dear members,

With the present newsletter I wish to update you all on the events that have characterised the life and activities of ISE in 2007, the first year of my term as President of the Society.

Scientific Meetings

In 2007, ISE organised two scientific meetings: the 5th Spring Meeting in Dublin, Ireland and the 58th Annual Meeting in Banff, Alberta, Canada. Both meetings were directly managed by the ISE which took care, through the ISE Office, of administration, registration and handling of abstracts. I was pleased to notice that the organisers of this last year's meetings took advantage of the experience that our Society acquired in the organization of the pioneering Annual Meeting in Edinburgh. I am sure that those of you who were in Ireland and/or in Canada, two countries that had never hosted an ISE meeting, will share my judgement that both the Spring Meeting and the Annual Meeting were scientifically very successful. It is also important for our Society that, in spite of moderate registration fees, both meetings generated a significant financial surplus which will be invested in future ISE activities, to the benefit of the Society's members.

Annual Meeting:

The 58th Annual Meeting of ISE, held from 9 - 14 September 2007 at the Banff Centre located in Banff National Park, a UNESCO World Heritage Site, attracted 902 participants from 55 different countries. The Banff Centre is surrounded by the spectacular beauty of the Canadian Rockies which was particularly enhanced by the clear sunny fall weather and enjoyed by all. The theme of the meeting, "**Exploring Frontiers of Electrochemistry**" reflected the pioneering spirit of those who first explored the west of North America.

The scientific contributions from the participants were excellent. The five plenary speakers included Andrzej Wieckowski as the *Electrochimica Acta* Gold Medal winner, Kingo Itaya (Japan), Wolfgang Knoll (Germany), Hector Abruna (USA) and Jeff Dahn (Canada). The other award winners included Alain Walcarius (Tajima Prize), Monica Santamaria (Hans-Jürgen Engell Prize), Vijayasekaran Boovaragavan (Oronzio and Niccolò De Nora Foundation Young Author Prize) and Kyung-Won Park (Oronzio and Niccolò De Nora Foundation Prize on Electrochemical Energy Conversion). The 1077 abstract submissions were divided into 42 keynotes and 442 oral presentations distributed among the ten Symposia, and 593 poster presentations separated into two poster sessions with viewing available during the day and late into the evening. A special symposium was held to honour Canada's most eminent electrochemist, the late Professor Brian E. Conway who secured a significant place among the most notable electrochemists of the 20th century. Two very successful sets of tutorial lectures were presented on Sunday afternoon: 1) "Nanotechnology" with Nongjian Tao and Richard McCreery. 2) "Corrosion in the Oil and Gas Industry" with Jose Vera and Mark Orazem.

The Welcome Reception sponsored by Elsevier on Sunday evening was a well attended meet and greet event. On Monday evening, Thermo Scientific sponsored a very successful Exhibition Reception held among the posters and exhibitors.

Wednesday brought some rain overnight which cleared in time for the excursions and a glorious view of the mountains. Participants had the choice of three excursions: 1) Lake Louise “Jewel of the Canadian Rockies” and Moraine Lake nestled in the Valley of the Ten Peaks, 2) Bow Lake to view Crowfoot Glacier and Peyto Lake considered the most emerald lake in the Rockies, 3) Johnston Canyon Hike which allowed participants to hike to the scenic canyon falls. Buses then delivered all delegates to a fun filled evening at the Mount View Barbecue. Thursday brought the banquet, attended by 400 delegates. The highlight of the evening was a spectacular performance by a three-time World Champion Native Hoop Dancer.

During the conference, ISE held meetings pertaining to the organization of the Society: Regional Representatives’ Meeting, Division Officers’ Meeting, Council Meeting and General Assembly. During the General Assembly a Co-operation Agreement between ECS and ISE was signed at by ECS President Barry MacDougall and myself (see below). For the first time the seven Divisions of ISE each held a successful reception or luncheon meeting with its members that allowed input and planning of future activities.

The 59th Annual Meeting will take place in Seville, Spain, from 7 – 12 September 2008. Its theme will be “**Electrochemistry down to the Molecular Level: Interfacial Science for Life and Technology**”. I do hope that a large number of you will participate in that event, thus discovering the latest advances of our discipline and the beauties of Andalusia.

Spring Meeting:

The theme of the 5th ISE Spring Meeting, held at Dublin City University, Dublin, Ireland from 1 - 4 May 2007, was “**Nanostructured Materials in Electrochemistry; Biosciences and Molecular Electronics Applications**”. The meeting was well attended, with the participation of over 170 electrochemists from both within and outside Europe.

Proceedings commenced with a wine reception on the Tuesday evening which allowed the delegates to meet in an informal setting. The first day of the scientific programme was dedicated to the fundamental behaviour of the nanostructured materials and it commenced with the plenary lecture given by Richard Crooks, University of Texas at Austin. Professor Crooks presented recent work on the “Synthesis, characterisation and electrocatalytic applications of dendrimer-encapsulated nanoparticles”. The same day, Ralph Nuzzo, University of Illinois at Urbana-Champaign, presented his invited lecture on “Micro Electrochemical Devices via Soft-Lithography: New Systems for Energy and Bioanalytical Applications”.

The second day was dedicated to materials application in biosciences, with invited lectures given by Philip Bartlett, University of Southampton, on “Engineering SERS Substrates for Bioelectrochemical Studies”, and Hubert Girault, Ecole Polytechnique Fédérale de Lausanne, on “Nanoparticles on surfaces for proteomic analysis”.

A large number of posters was submitted to the conference and separated into two sessions, one on the Wednesday evening, accompanied by refreshments and finger food, the other on the Thursday afternoon, leading up to the departure for the Gala Dinner in the Dublin Mountains at Johnnie Foxes Pub, where the delegates could experience the atmosphere of a traditional Irish Pub with traditional Irish music and dance.

The final day was devoted the molecular electronic applications of nanostructured materials; Jens Ulstrup presented his recent work on “Single-molecule Transistors from Au-nanoparticles to Proteins and DNA in Electrochemical Environment”. The meeting was then closed by Philip Bartlett, as a representative of the ISE, late on the Friday afternoon.

The 6th Spring Meeting, “**Electrochemistry for a Healthy Planet**” will take place in Foz do Iguacu, Brazil, 16 -19 March 2008, with the contribution of Divisions 1 and 5 of ISE. Registration is already open.

Sponsored Meetings:

Many international meetings were sponsored by the ISE in 2007, either by the Divisions or directly by the Executive Committee for wide-scope events.

- Third ISEAC Triennial International Conference on ElectroAnalytical Chemistry and Allied Topics
10-15 March 2007, Shilong, Shimla, India, sponsored by Division 1
- Deutsches Biosensorsymposium
March 2007, Bochum, Germany, sponsored by Division 2
- XIX International Symposium on Bioelectrochemistry and Bioenergetics
1-4 April 2007, Toulouse, France, sponsored by Division 2
- ICTP Conference on "From Physical Understanding to Novel Architectures of Fuel Cells"
21-25 May 2007, Trieste, Italy, sponsored by Division 3
- 2007 International Conference on Advanced Capacitors
28-30 May 2007, Kyoto, Japan, sponsored by Division 3
- 7th International Symposium on Electrochemical Impedance Spectroscopy
3-8 June 2007, Argelès-sur-Mer, France, sponsored by Division 5
- Polymer Batteries and Fuel Cells
11-15 June 2007, Rome, Italy, sponsored by Division 3
- International Conference on Biocorrosion of Materials
11-14 June 2007, Paris, France, sponsored by Division 4
- International conference on Electrified Interface 2007
24-29 June 2007, Sapporo, Hokkaido, Japan, sponsored by Division 7
- Journées d'Electrochimie 2007
2-7 July 2007, Lyon, France, sponsored by the Executive Committee
- Electrochemistry and Self-Assembly for Nanomaterials Science
29-30 August 2007, Namur, Belgium, sponsored by Divisions 1 and 7
- International Congress on Acoustics
September 2007, Madrid, Spain, sponsored by Division 5
- 4th World Congress on Biomimetics, Artificial Muscles & Nano-Bio
10 October 2007, Cartagena, Spain, sponsored by Division 7
- Eurointerfinish 2007
18-19 October, Athens, Greece, sponsored by Division 5
- International Symposium on ElectroChemical Machining Technology
25-26 October 2007, Chemnitz, Germany, sponsored by the Executive Committee
- 2nd Electrochemistry School
10-14 December 2007, São Paulo, Brazil, sponsored by the Executive Committee

Agreement with The Electrochemical Society (ECS)

A cooperation agreement between ISE and ECS was signed in Banff, during the General Assembly of ISE members, by the President of ECS Barry MacDougall and by myself. This agreement is intended to intensify the co-operation between ISE and ECS, through the exchange of information, the co-ordinated scheduling of scientific meetings, and the creation of a joint task force, open to other major electrochemical societies, aimed at identifying actions by which both societies may serve the electrochemical community.

Fellows

Seven new ISE Fellows were appointed in 2007 in recognition of their scientific achievements. They are: Claude Gabrielli, Eliezer Gileadi, Hubert Girault, Dieter Kolb, Alexei Kornishev, Bruno Scrosati and Shi-Gang Sun. Most of them were present in Banff where their inductions were celebrated by the ISE members in the General Assembly.

Awards

Nine ISE Prizes were awarded in 2007, and announced in Banff, to recognize the scientific work of outstanding scientists and promising young researchers.

- The Tajima Prize was awarded to Chi-Chang Hu for his outstanding achievements in developing novel nanostructured electrode materials for electrochemical supercapacitors.
- The Prix Jacques Tacussel was awarded to Bruno Pettinger for his outstanding contributions to the development of electrochemical techniques, particularly linked to Raman spectroscopy.
- The Hans-Jürgen Engell Prize was awarded to Hiroaki Tsuchiya for his researches in electrochemical materials science.
- The Oronzio and Niccolò De Nora Foundation Young Author Prize was awarded to Nuria Garcia-Araez, author of the article "Thermodynamic approach to the double layer capacity of a Pt(111) electrode in perchloric acid solutions" published in *Electrochimica Acta* 51 (2006) 3787–3793.
- The Vetter Prize was awarded to Magdaléna Hromadová, Heyrovsky Institute of Physical Chemistry, Prague, for her work in the field of charge transfer processes.
- The Frumkin Memorial Medal was awarded to Jean Clavilier for his outstanding contributions to the study of the relationship between metal structure and interfacial properties.
- The Oronzio and Niccolò De Nora Foundation Prize of ISE on Electrochemical Energy Conversion was awarded to Priscilla Reale for her outstanding research work on lithium batteries.
- The Oronzio and Niccolò De Nora Foundation Prize of ISE on Electrochemical Technology and Engineering was awarded to Ruichun Jiang for his excellent work on anodes for efficient H₂ oxidation electrocatalysis in presence of additives and impurities.
- The Katsumi Niki Prize for Bioelectrochemistry was awarded to Philip Bartlett for his outstanding contributions to bioelectrochemistry mainly in the field of biosensors, nanostructured surfaces, conducting polymers in bioelectroanalytical devices.

The *Electrochimica Acta* Travel Awards for Young Electrochemists 2007, offered by Elsevier and aimed at favouring the participation of young scientists in the Banff Annual Meeting, were attributed to Alexander Oleinick, Ukraine and Nick Birbilis, Australia. Two Travel Awards will be attributed in 2008, to enable young researchers to participate in the 59th Annual Meeting.

Eight ISE prizes will be awarded in 2008. Two of them, the Bioelectrochemistry Prize of ISE Division 2 and the Brian Conway Prize for Physical Electrochemistry, are entirely new. Furthermore, the Oronzio and Niccolò De Nora Foundation Prize of ISE on Environmental Electrochemistry and the Oronzio and Niccolò De Nora Foundation Prize of ISE on Applied Electrochemistry replace the Oronzio and Niccolò De Nora Foundation Prize of ISE on Electrochemical Energy Conversion and the Oronzio and Niccolò De Nora Foundation Prize of ISE on Electrochemical Technology and Engineering.

Nominations and applications are invited and must be submitted to the ISE Office between February 1st and May 1st, 2008.

Society Journal

Electrochimica Acta, the Journal of our Society, is enjoying a long period of continuous growth. Its Impact Factor for 2006 (citations in 2006 of papers published in 2005 and 2004) has jumped to 2.955, compared to 2.453 for 2005. Although several electrochemistry journals have improved their Impact Factors, none has progressed as much as *Electrochimica Acta*. Sergio Trasatti has been appointed for another term as Editor-in-Chief, and will continue to lead *Electrochimica Acta* with the help of Tomokazu Matsue and Andrzej Wieckowski (Editors) and of a newly-appointed Associate Editor, Sotirios Sotiropoulos. I am confident that, thanks to their tireless and competent work, our Journal will keep growing.

Executive Committee

Rob Hillman became ISE President Elect on January 1st, 2007, thus returning to be a member of the Executive Committee where he served as Secretary General for two terms (1999-2004). Rob's scientific competence and organizational experience will be of great help to the further growth of our Society.

Last Spring, four Executive Committee members were elected: Sharon Roscoe was re-elected in her role of Secretary General. Elisabet Ahlberg was elected Treasurer. Petr Novák, our former Treasurer, and Annick Hubin were elected Vice-Presidents and will be responsible for the Regional Sections and for the relations with other Societies, respectively. I am pleased to welcome Elisabet and Annick on behalf of the whole Executive Committee, and to continue the collaboration with Sharon and Petr.

Luis Alberto Avaca and Francesco Di Quarto completed their term on December 31st, 2007. We are all indebted to them for their passionate work as Vice-Presidents.

Divisions

ISE Division Officers are acquiring an increasing awareness of their key role in developing the scientific activities of the Society, and especially in establishing the scientific programmes of the Spring and Annual Meetings, either directly or through the Symposium Organizers that they appoint. A further sign that Divisions are becoming increasingly active is the fact that, for the first time, all of them organized meetings of their members during the Annual Meeting in Banff, where useful discussions were held. Some further progress is still to be made in the communication between members and Officers of the Divisions.

Regional Sections

Regional Representatives of 7 sections were recently elected. G. Lang (Hungary) and V. Jovic (Serbia) were re-elected for a second term. A. Jänes (Estonia), R. Ramanauskas (Lithuania), C. Muller (Spain) and R. Dryfe (United Kingdom) will serve in 2008-2010 for their first term. Furthermore, thanks to the increase in the local membership, Israel recovered its right to be recognized as Regional Section and O. Lev was elected as its Representative. I wish to express my thanks to former Regional Representatives for their activity and my congratulations to the new ones on their election. Their active participation in the life of the Society, especially in recruiting new members and highlighting ISE activities in their countries, will be of primary importance.

Committees

Hasuck Kim became Scientific Meetings Committee (SMC) Chair on January 1st, 2007. Elisabet Ahlberg, the new Treasurer, will serve ex-officio in the SMC from 2008.

In the Fellows Nominating Committee (FNC), Shi-Gang Sun was appointed to replace Yasuhiko Ito who very successfully served as FNC Chair with dedication for five years, and whose term ended on December 31st, 2007. After consulting the FNC members, the Executive Committee appointed Jacek Lipkowski as the new Chair.

Rüdiger Kötz and Kohei Uosaki were appointed members of the Publication Committee for the term 2008-2010.

Membership

In 2007, the Society membership reached the number of 1910 active members, the highest ever, compared with 1682 members in 2006. The growth rate in the last few years has been so high that one can reasonably anticipate that the threshold of 2000 members will be achieved in 2008. Should we attain this goal, ISE active membership will have doubled in 5 years. Five years ago, even the most optimistic among us could not forecast such a development. I am confident that all the ISE Officers

will do their best for further extending the Society membership. But they will need the help of all members. Please, invite your colleagues to join ISE and to participate in our activities.

We will greatly miss some friends and colleagues whom we used to meet at ISE conferences, and who left us in the past twelve months. They will be remembered by the whole electrochemical community.

The first year of my term has been very rich in events and achievements for our Society. I look forward to an equally busy and rewarding second year. I gratefully thank all the colleagues who contributed to the life of the Society, and I wish you all a peaceful and successful New Year.

Christopher M.A. Brett

Christopher M.A. Brett, ISE President 2007-2008.

Coimbra, Portugal, January 2008