

## The Evolving ECS Publications

### ECS Journals and Editorial Boards



**Electrochemical Science & Technology (EST) Areas**  
*Journal of The Electrochemical Society (JES)*  
*ECS Electrochemistry Letters (EEL)*

- **Petr Vanýsek**, Editor; *pvanyse@gmail.com*
- **Gerald S. Frankel**, Technical Editor, *Corrosion Science and Technology*; *frankel.10@osu.edu*
- **Thomas F. Fuller**, Technical Editor, *Fuel Cells, Electrolyzers, and Energy Conversion*; *tom.fuller@gttri.gatech.edu*
- **Charles L. Hussey**, Technical Editor, *Electrochemical/Electroless Deposition*; *chclh@chem1.olemiss.edu*
- **Shelley D. Minteer**, Technical Editor, *Physical and Analytical Electrochemistry, Electrocatalysis, and Photoelectrochemistry*; *electrochem.minteer@gmail.com*
- **Rangachary Mukundan**, Technical Editor, *Chemical and Biological Sensors*; *mukundan@lanl.gov*
- **Dennis G. Peters**, Technical Editor, *Organic and Bioelectrochemistry*; *peters@indiana.edu*
- **John Weidner**, Technical Editor, *Electrochemical Engineering*; *weidner@engr.sc.edu*
- **Martin Winter**, Technical Editor, *Batteries and Energy Storage*; *martin.winter@uni-muenster.de*
- **Doron Aurbach**, Associate Editor
- **Thierry Brousse**, Associate Editor
- **Raymond J. Gorte**, Associate Editor
- **Takayuki Homma**, Associate Editor



**Solid State Science & Technology (SSST) Areas**  
*ECS Journal of Solid State Science and Technology (JSS)*  
*ECS Solid State Letters (SSL)*

- **Dennis W. Hess**, Editor; *dennis.hess@chbe.gatech.edu*
- **Jennifer A. Bardwell**, Technical Editor, *Electronic Materials and Processing*; *jennifer.bardwell@nrc.ca*
- **Stefan De Gendt**, Technical Editor, *Dielectric Science and Materials*; *degendt@imec.be*
- **Francis D'Souza**, Technical Editor, *Carbon Nanostructures and Devices*; *Francis.DSouza@UNT.edu*
- **Kailash C. Mishra**, Technical Editor, *Luminescence and Display Materials, Devices, and Processing*; *kailash.mishra@sylvania.com*
- **Rangachary Mukundan**, Technical Editor, *Physical Sensors*; *mukundan@lanl.gov*
- **Yue Kuo**, Technical Editor, *Electronic and Photonic Devices and Systems*; *yuekuo@tamu.edu*
- **George Celler**, Associate Editor



See the spring 2012 issue of *Interface* for a complete description of the Technical Interest Areas as well as biographies of the Editorial Boards.

Publications at ECS have undergone some exciting changes over the past 18 months. (See the spring 2012 issue of *Interface* for the story on the planning and early implementation of these changes.) In the journals area, the editorial boards were reorganized to place more emphasis on the Technical Interest Areas (TIAs) of the Society. Now each TIA has a dedicated Technical Editor responsible for overseeing submissions and peer review in his or her TIA. These Technical Editors are working hard to obtain the best content for their technical areas.

In addition to the restructured Editorial Boards, two other important changes have been instituted in order to develop the content of the ECS journals. One of the most complex changes was the addition of three new technical journals to the ECS portfolio (see sidebar). The three new journals, which launched in July 2012, were created to address the increase in submissions and to establish separate journals for the solid state science and technology areas.

The other major change has been the introduction of a program to publish “focus issues” in the journals (see sidebar on next page). In the first focus issue ever published by ECS, SSST Editor **Dennis Hess** commented, “...considerable effort is required for those scientists and engineers who require information in a rapidly moving field, to gain perspective regarding key problems, developments, and future needs for effective and efficient advances. Special issues devoted to critical and high profile areas offer state-of-the-science and state-of-the-art summaries of these areas. Most importantly, such published issues offer perspective as described and formulated by experts who have been and continue to be intimately involved in the field.”

**Kailash Mishra**, Technical Editor, and one of the guest editors for this first focus issue on *Luminescent Materials for Solid State Lighting*, had this to say: “The primary objective of this volume is to provide the readers of ECS journals a bird’s eye view of the emerging field of research in luminescent materials, and to identify gaps in research which must be filled to make definitive progress toward energy efficient lighting. We also hope that this volume will serve as a reference document for research in luminescent materials and applications.” Be sure to take a look at this first special focus issue, which is free online: <http://jss.ecsdl.org/content/2/2.toc>.



The ECS Editorial Board welcomed **Shelley Minter**, who was appointed as Technical Editor for the Physical and Analytical Electrochemistry, Electrocatalysis, and Photoelectrochemistry TIA. The ECS flagship, *Journal of The Electrochemical Society*,

and one of the Society's newest journals, *ECS Electrochemistry Letters*, will benefit greatly from Dr. Minter's experience and knowledge.

Dr. Minter said, "I am particularly excited about joining the editorial board at this moment in time. This is an extremely exciting period for ECS journals. The Society recently restructured its editorial boards and started new journals to better serve the electrochemistry community. In the last five to ten years, we have seen an expansion in research in physical and analytical electrochemistry, electrocatalysis, and photoelectrochemistry presented at the ECS meetings, so as the Technical Editor for this area, I will be focused on trying to attract more of that great research to the ECS journals."

Dr. Minter is a USTAR Professor in both the Departments of Chemistry and Materials Science and Engineering at the University of Utah. She received her PhD in analytical chemistry from the University of Iowa in 2000 under the direction of Johna Leddy. After receiving her PhD, she spent eleven years as a faculty member in the Department of Chemistry at Saint Louis University before moving to the University of Utah.

Dr. Minter has published more than 150 publications and over 250 presentations at national and international conferences. She has won several awards including the Missouri Inventor of the Year, International Society of Electrochemistry Tajima Prize, and the Society of Electroanalytical Chemists' Young Investigator Award.

In 2003, Dr. Minter cofounded Akermin, Inc. (with one of her previous graduate students), which has focused on the commercialization of Dr. Minter's biobattery technology and has moved on to carbon capture technology. Her research interests are focused on electrocatalysis and bioanalytical electrochemistry. Dr. Minter has expertise in bioelectrochemistry and bioelectrocatalysis for biosensors and biofuel cells.

As Chair, Vice-Chair, Secretary-Treasurer, and Member-at-Large of the Physical and Analytical Electrochemistry Division (PAED), Dr. Minter has made significant contributions to ECS for many years. She has also served on the Honors and Awards Committee, the New Technology Subcommittee, and the Symposium Planning Subcommittee. We thank her again for accepting this challenging new role.

## ECS Journals—Focus Issues for 2013-2014

- Luminescent Materials for Solid State Lighting (free online: <http://jss.ecsdl.org/content/2/2.toc>)
- Carbon Nanostructures for Energy Conversion and Storage
- Electrochemical Processing for Interconnects
- Electrodeposition for Energy Technology
- Intercalation Compounds for Rechargeable Batteries
- MEMS/NEMS
- Organic and Biological Electrochemistry
- Semiconductor Cleaning Science and Technology
- Wide Bandgap Power Semiconductors

### ecstransactions

*ECS Transactions* (ECST), the Society's online database containing full-text content of proceedings from ECS meetings and ECS-sponsored meetings, has been in existence for just eight years; but it has already published over 50 volumes and over 125,000 pages. ECST will receive renewed strategic attention as the Society looks to improve upon, and grow, its high-quality venues for authors and resources for readers.



As we look at possibilities for the growth of ECST, the Society welcomes the leadership of **Jeffrey Fergus**, who has come on board as the new Editor of *ECS Transactions*.

Dr. Fergus has been a member of ECS for 25 years and has served on several ECS committees, including the Publication Committee, the New Technology Committee, and the *Interface* Advisory Board. He is currently Chair of the High Temperature Division and has been involved in organizing several ECS symposia. Dr. Fergus is concluding his term as Chair of the Education Committee and was guest editor for the spring 2012 issue of *Interface*, which focused on education in electrochemistry. He led the establishment of, and serves as advisor for, the Auburn University Student Chapter of ECS. He is also involved in improving engineering education as a member of the ABET Engineering Accreditation Commission.

Dr. Fergus received a BS in metallurgical engineering from the University of Illinois and PhD in materials science and engineering from the University of Pennsylvania, where he worked with former ECS President Wayne Worrell. After a postdoctoral position at the University of Notre Dame, Dr. Fergus joined the materials engineering faculty at Auburn University, where he is currently a professor. His research interests are in the high temperature degradation of materials and materials for electrochemical devices. This includes sensors for a variety of applications from measuring humidity and CO<sub>2</sub> in ambient conditions to measuring dissolved gases in molten metals. He also has worked on materials for batteries and fuel cells with an emphasis on issues related to degradation in performance during long-term operation.

Over the next year, Dr. Fergus will be looking for input on how to use *ECS Transactions* to expand dissemination of ECS meeting content and enhance scientific discourse in electrochemical and solid-state science. Advances in technology and networking infrastructure have changed the ways information is obtained and shared. *ECS Transactions* is well positioned to take advantage of these changes to complement and enhance the technical content provided by other ECS publications and the discussions that occur at ECS meetings.

While the Society welcomed new editors, we also thanked outgoing editors, including **Dan Scherson**, formerly EST Editor who left that position to take up his role as a Vice-President of the Society; **Andrew Gewirth**, former Technical Editor for the Physical and Analytical Electrochemistry, Electrocatalysis, and Photoelectrochemistry TIA; and **John Weidner**, who completed his term as Editor of *ECS Transactions* only to turn around and take up a Technical Editor role for the journals. ■

## Institutional Member News

ECS Institutional Members are valuable partners in helping ECS to advance the Society's purpose. Institutional members enjoy many valuable benefits including access to the ECS Digital Library through complimentary institutional member representatives, complimentary meeting registrations, company recognition on the ECS website and print listing in the *Journal of The Electrochemical Society*, plus discounts on meeting registrations, exhibit booths, sponsorship packages, tutorials, and advertising in *Interface*.

### Spotlight on Faraday Technology, Inc.



We are pleased to spotlight Faraday Technology, Inc., an eight-year member at the Patron Level.

**Faraday Technology, Inc.** is an electro-chemical research, development, and engineering firm working with university collaborators to provide innovative electrochemical technologies for commercial and government clients. Faraday was founded in 1991 by E. Jennings Taylor to develop and commercialize novel electrochemical technology with the vision, "...to be known as the company that changed the focus of electrochemical engineering from the art of complex chemistries to the science of pulse/pulse reverse electric fields."

In 2007, the National Association of Surface Finishers recognized Faraday's founder for contributions to the field of

pulse/pulse reverse electrolytic surface finishing. As noted by Dr. Taylor, the William Bum Scientific Achievement Award "...is recognition of the contributions of colleague/collaborators past and present, particularly those at Faraday, to the field of pulse/pulse reverse electrochemistry."

In 2011, Faraday scientists/engineers were part of a DOE led team that received an R&D 100 Award for contributions to electrodeposited fuel cell coatings.

Faraday's facilities support the development of novel electrochemical technologies from concept to feasibility demonstration to alpha/beta scale pre-production validation, and include a wet electrochemistry laboratory, small-scale machine shop, as well as engineering design and controls infrastructure.

Faraday's prototype facility includes two clean rooms, a two-station wafer tool for plating and electrochemical etching, corrosion panel evaluation system, electrochemical machining station, and numerous electrochemical cells for full scale and subscale plating and electrochemical etching of panels, outside diameters, and inside diameters.

Faraday considers itself to be an "electrochemical innovation factory" with commercial value generated through strategic partner sales as a result of licensing or patent acquisition. Faraday's intellectual property includes two registered trademarks, one registered service mark, 24 issued U.S. patents, five issued foreign patents, and approximately 15 patents pending. ■

## ECS Co-sponsored Conferences for 2013

*In addition to the regular ECS biannual meetings, ECS, its Divisions, and Sections cosponsor meetings and symposia of interest to the technical audience ECS serves. The following is a list of the cosponsored meetings for 2013. Please visit the ECS website for a list of all co-sponsored meetings.*

- **New Processes and Materials Based on Electrochemical Concepts at the Microscopic Level (MicroEchem 2013)**, September 16-19, 2013 – Queretaro, Mexico
- **64<sup>th</sup> Annual Meeting of the International Society of Electrochemistry**, September 8-13, 2013, Santiago de Querétaro, Mexico
- **EuroCVD 19**, September 1-6, 2013, Varna, Bulgaria
- **4<sup>th</sup> International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N)**, June 16-20, 2013, Corfu, Greece
- **Insights from the Inside: Imaging Electrochemical Systems**, April 24, 2013, Villigen, Switzerland (Sponsored by the ECS European Section)
- **13<sup>th</sup> Topical Meeting of the International Society of Electrochemistry**, April, 7-10, 2013, Pretoria, South Africa
- **XIX Simposio Brasileiro de Electroquímica e Eletroanalítica (XIX SIBEE)**, April 1-5, 2013, Sao Paula, Brazil
- **China Semiconductor Technology International Conference 2013 (CSTIC 2013)**, March 19-21, 2013, Shanghai, China
- **12<sup>th</sup> Topical Meeting of the International Society of Electrochemistry**, March 17-21, 2013, Bochum, Germany

*To learn more about what an ECS co-sponsorship could do for your conference, including information on publishing proceeding volumes for co-sponsored meetings, or to request an ECS co-sponsorship of your technical event, please contact [ecs@electrochem.org](mailto:ecs@electrochem.org).*

## Division News

### Applied NanoFluorescence, LLC Pledges Support for the FNCN Division Richard E. Smalley Research Award Fund



In August, ECS received a \$5,000 contribution to help fund the Richard E. Smalley Research Award of the Fullerenes, Nanotubes, and Carbon Nanostructures (FNCN) Division. This donation constitutes the first portion of a \$25,000 endowment pledge by Applied NanoFluorescence, LLC.

Established in 2006 with the intention to encourage excellence in nanocarbon research, the Smalley Award recognizes individuals who have made outstanding contributions to the understanding and applications of fullerenes, nanotubes, or related carbon nanostructures. It is named in honor of the late Richard E. Smalley, who in 1996 won the Nobel Prize for Chemistry for the 1985 discovery of the soccer-ball shaped C60 molecule, also known as Buckminsterfullerene. This

seminal discovery opened new branches of science and marked the birth of carbon nanotechnology.



**R. BRUCE WEISMAN**, Chair of the FNCN Division and President of Applied NanoFluorescence, LLC, commented, "All of the research encompassed by the FNCN Division has grown out of the pioneering work of Richard Smalley,

who is considered the founder of modern nanocarbon research. He is widely recognized as one of the greatest chemists of the 20<sup>th</sup> century, and it is an important function of the FNCN Division to memorialize him through

this prestigious award that recognizes major contributions of other researchers. Smalley was an important collaborator in the spectroscopic research on carbon nanotubes that now forms the basis of products sold by Applied NanoFluorescence. It is therefore highly appropriate for Applied NanoFluorescence to be the principal sponsor of this Award."

It is through such generous support from its individual, corporate, and institutional members that the awards programs of ECS and its Divisions may continue to provide students and researchers with the recognition that their achievements deserve. Continued contributions and assistance will ensure that ECS can sustain these services to the electrochemical and solid state science communities in the future.

#### Have you moved or are you planning to move?

Please take a moment to fill out this form with your updated contact information and return it to ECS.  
(The Electrochemical Society, 65 South Main Street, Building D, Pennington, NJ, 08534-2839, USA)

(Please print clearly)

Name \_\_\_\_\_ Membership No. \_\_\_\_\_

##### Old address

Organization \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

City \_\_\_\_\_

State/Province \_\_\_\_\_

Postal Code \_\_\_\_\_

Country \_\_\_\_\_

E-Mail \_\_\_\_\_

##### New address

Organization \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

City \_\_\_\_\_

State/Province \_\_\_\_\_

Postal Code \_\_\_\_\_

Country \_\_\_\_\_

E-Mail \_\_\_\_\_

Phone \_\_\_\_\_

Fax \_\_\_\_\_

## Division News

### Division Officer Slates Announced

New officers for a 2013-2015 term have been nominated for the following Divisions. All election results will be reported in the summer 2013 issue of *Interface*.



#### Electronics & Photonics Division

*Chair*

Andrew Hoff, University of South Florida

*1st Vice-Chair*

Mark Overberg, Sandia National Laboratories

*2nd Vice-Chair*

Edward Stokes, University of North Carolina at Charlotte

*Secretary*

Junichi Murota, Tohoku University

*Treasurer*

Fan Ren, University of Florida

*Members-at-Large (up to 23 to be elected)*

Albert Baca, Sandia National Laboratories

Helmut Baumgart, Old Dominion University

Noel Buckley, University of Limerick

George Celler, Rutgers University

Cor Claeys, IMEC

Jamal Deen, McMaster University

Stefan DeGendt, IMEC

Manfred Engelhardt, Infineon Technologies AG

Takeshi Hattori, Hattori Consulting International

Jr-Hau He, National Taiwan University

Hiroshi Iwai, Tokyo Institute of Technology

Zia Karin, Aixtron Corporation

Yue Kuo, Texas A&M University

Qilang Li, George Mason University

Durgamadhab Misra, New Jersey Institute of Technology

Suzuki Motofumi, Kyoto University

Colm O'Dwyer, University of Limerick

Fred Roozeboom, Eindhoven University of Technology

Jerzy Ruzyllo, Pennsylvania State University

Krishna Shenai, Argonne National Laboratory

Tadatomo Suga, University of Tokyo

Ravi Todi, IBM Corporation

Yu-Lin Wang, National Tsing-Hua University



#### Energy Technology Division

*Chair*

Jeremy Meyers, EnerVault

*Vice-Chair*

Adam Weber, Lawrence Berkeley National Laboratory

*Secretary*

Scott Calabrese Barton, Michigan State University

*Treasurer*

Huyen Dinh, Hydrogen Technologies & Systems Center, NREL

William Mustain, University of Connecticut

*Members-at-Large (up to 10 to be elected)*

Katherine Ayers, Proton Energy Systems

James Fenton, University of Central Florida

Kunal Karan, University of Calgary

Prashant Kumta, University of Pittsburgh

Ayyakkannu (Mani) Manivannan, National Energy Technology Laboratory

Sanjeev Mukerjee, Northeastern University

Sri Narayan, University of Southern California

Peter Pintauro, Vanderbilt University

Krishnan Rajeshwar, University of Texas at Arlington

Minhua Shao, UTC Power

Juergen Stumper, Automotive Fuel Cell Cooperation

Vaidyanathan (Ravi) Subramanian,

University of Nevada, Reno

Meng Tao, Arizona State University

John Weidner, University of South Carolina

Karim Zagib, Hydro-Quebec



#### Organic & Biological Electrochemistry Division

*Chair*

James Burgess, Case Western Reserve University

*Vice-Chair*

Mekki Bayachou, Cleveland State University

*Secretary Treasurer*

Graham Cheek, U.S. Naval Academy

*Members-at-Large (up to 12 to be elected)*

David Cliffl, Vanderbilt University

Danjun Fang, Nanjing Medical University

Toshio Fuchigami, Tokyo Institute of Technology

Chang Ji, Texas State University-San Marcos

Dechen Jiang, Nanjing University

Donal Leech, National University of Ireland Galway

Flavio Maran, University of Padova

Michael Mirkin, CUNY, Queens College

Kevin Moeller, Washington University (St. Louis)

Ikuo Nishiguchi, Nagaoka University of Technology

James F. Rusling, University of Connecticut

Richard West, Case Western Reserve University



#### Physical & Analytical Electrochemistry Division

*Chair*

Robert Mantz, Army Research Office

*Vice-Chair*

Pawel Kulesza, University of Warsaw

*Secretary*

Andrew Hillier, Iowa State University

*Treasurer*

Alanah Fitch, Loyola University

*Members-at-Large (at least six to be elected)*

Alice Suroviec, Berry College

Gregory Jerkiewicz, Queen's University

Wesley Henderson, North Carolina State University

Nicolas Mano, CRPP, Centre de Recherche Paul Pascal

Rob Calhoun, US Naval Academy

Petr Vanýsek, Northern Illinois University

Plamen Atanassov, University of New Mexico

## ECS Staff News

The Society's programs and services continue to grow. **WINNIE MUTCH** joined ECS in December 2011 as our first Web Manager,



responsible for updating and maintaining the ECS websites, as well as working with the marketing department in the creation and implementation of the Society's marketing e-mails.

Prior to joining ECS, Mutch was the Web Manager for the not-for-profit Global Health Council, which was a world-wide membership organization that served a unique role as a neutral convener of, and information source for, the global health community.

Prior to working in a Web-related capacity, Mutch had an international business career that covered Asia and Europe as well as North and South America. During that time, she was also part of the pre-opening team for Euro Disney in Paris, France.

Originally from Scotland, Mutch's career on the Web spans some 17 years, during which time she also worked for two hi-tech companies as their Electronic Marketing Manager. She has designed and built websites for many clients including several departments at Dartmouth College.

"During this past year, Winnie applied for and received approval for a Google AdWords grant on behalf of ECS that is worth \$120,000 per year," said Mary Yess, ECS Deputy Executive Director, "which is an excellent addition to the Society's relatively new marketing efforts. She also has provided alternative methods for ECS to provide its members with abstracts online, creating substantial savings for the organization. Winnie has made a sound contribution to our website maintenance in just one short year and is well on the way to making improvements and upgrades. We are looking forward to taking advantage of Winnie's expertise as we begin plans for the re-design of the ECS website."



**STACY SCHLAGS** joined ECS in February of 2012 as the new Meetings Coordinator in the Meetings and Exhibits Department. She is responsible for the development of meeting logistics as well as onsite operations at all ECS meetings. She also maintains the hotel room block, organizes all catering events, and oversees the shipment of materials to and from the various global meeting venues. Schlags

communicates regularly with various ECS Division and Committee chairs to prepare and plan for the successful execution of many onsite events. She also likes to take creative initiative in projects such as the ECS mobile app, which has been growing more and more with each Society meeting.

Schlags is a 2009 graduate from Rider University in Lawrenceville, New Jersey where she earned a Bachelor of Arts Degree in journalism with a track in public relations, and a minor in event planning. She will be attending graduate school in the near future to further her education in the field of business communication.

Prior to joining ECS, Schlags worked at the Wyndham Philadelphia-Mount Laurel Hotel as a Sales and Catering Manager. ECS Meetings and Exhibits Director Stephanie Plassa noted, "While at the Wyndham, Stacy managed hotel room blocks, social and corporate catering events, and worked one-on-one with prospective clients. She used her detailed-oriented skills to manage hundreds of accounts simultaneously. Her enthusiasm of working with people and challenging herself with various projects has certainly carried over from her past experience. Stacy's experience has already made a difference at the ECS meetings and she will be invaluable as the Society moves ahead into managing more meetings each year." ■

## In the **NEXT** issue of **INTERFACE**

- **SOLAR FUELS** will be featured in the summer 2013 issue. Guest edited by **Nianqiang "Nick" Wu**, the issue will include four articles that reflect the most abundant, clean, renewable energy source. **Akira Fujishima, Kazuya Nakata, Tsuyoshi Ochiai, Donald Tryk, and A. Manivannan** present a perspective on recent aspects of photocatalytic materials constructed at different dimensions. **Kazunari Domen and Jun Kubota** highlight oxynitride and nitride semiconductor photocatalysts for the production of solar hydrogen. **Nianqiang (Nick) Wu and Scott Cushing** provide new insight into the plasmon-enhanced solar energy harvesting. In addition, a symposium on "Renewable

*Fuels from Sunlight and Electricity" was held at PRiME 2012. The research theme of this symposium was focused on the development of materials and devices for hydrogen generation and CO<sub>2</sub> conversion to fuels. The research activities reflected by symposium are described by the paper of **Heli Wang, Deryn Chu, and Eric L. Miller.***

- **HIGHLIGHTS FROM THE ECS MEETING IN TORONTO...** Don't miss all the photos and news from the ECS spring 2013 meeting in Toronto.
- **TECH HIGHLIGHTS** continues to provide readers with free access to some of the most interesting papers published in the ECS journals, including articles from the Society's newest journals: ECS Journal of Solid State Science and Technology, ECS Electrochemistry Letters, and ECS Solid State Letters.
- Don't miss the next edition of **WEBSITES OF NOTE**, Interface's regular look at interesting websites.



## websites of note

by Zoltan Nagy

### The 2000 Nobel Prize in Chemistry

Alan Heeger, Alan G. MacDiarmid, and Hideki Shirakawa were the awardees “for the discovery and development of conducting polymers.” The site contains details of the award ceremony, the Nobel lectures, and details about the biography and accomplishments of the awardees.

- [http://www.nobelprize.org/nobel\\_prizes/chemistry/laureates/2000/](http://www.nobelprize.org/nobel_prizes/chemistry/laureates/2000/)

### Conducting Polymers

A very detailed treatment of conducting polymers. Including electron-conducting, proton-conducting, and ion-conducting polymers. The theory and mechanism of conduction, and some practical uses. It treats in detail more than ten different conducting polymers, providing their molecular structures and their reactions.

- J. Steinke, Imperial College, London
- <http://www.ch.ic.ac.uk/local/organic/tutorial/steinke/4yrPolyConduct2003.pdf>

### Application Guide for Aluminum Electrolytic Capacitors

The site contains detailed description of production techniques of electrolytic capacitors, comparison to other types of capacitors, their electrical characteristics, and instructions for their correct and safe usage techniques. In spite of the dominance of printed circuit boards, these “old-fashioned” capacitors still have many uses and applications today.

- Cornell Dubilier, Liberty, SC
- <http://electrochem.cwru.edu/encycl/misc/c04-appguide.pdf>

### Ion-selective Electrode Measurements, A Beginner’s Guide

Basic information on ISEs. Including: basic theory of ISE measurements; types of ion selective electrodes; reference electrodes; problems with ISE measurements; calibration theory; calibration practice; measuring procedures; methods of analysis; types of measuring devices and data processing; recent developments; recent research into corrections for interfering ions; and Internet links and bibliography.

- C. C. Rundle, Nico2000, London
- <http://www.nico2000.net/Book/Guide1.html>

### About the Author

**ZOLTAN NAGY** is a semi-retired electrochemist. After 15 years in a variety of electrochemical industrial research, he spent 30 years at Argonne National Laboratory carrying out research on electrode kinetics and surface electrochemistry. Presently he is at the Chemistry Department of the University of North Carolina at Chapel Hill. He welcomes suggestions for entries; send them to [nagy@email.unc.edu](mailto:nagy@email.unc.edu).

Toronto  
ON • Canada  
May 12-16, 2013



223<sup>rd</sup> ECS Meeting

### Annual Society Luncheon and Business Meeting

The Annual Society Luncheon and Business Meeting will take place on Tuesday, May 14, starting at 1215h. The President, Secretary, and the Treasurer will give brief reports on the current state of the Society, and the Student Poster Award presentation will take

place at this annual business luncheon. All members and meeting attendees are welcome to participate in this event. Tickets are \$27.00 by Early-Bird deadline, and \$32.00 onsite. See page 17 more information about the Toronto meeting, including how to register.