

ECS Receives Major Gift

ECS Past President (1993-94) **ROBERT P. FRANKENTHAL** recently made a large charitable gift annuity to support the ECS Publications endowment fund. These funds are used to expand and maintain the content in the ECS Digital Library (www.ecsdl.org). The Digital Library contains the ECS journals (*Journal of The Electrochemical Society* dating back to 1955, and *Electrochemical and Solid-State Letters* dating back to its inception in 1998), *Interface*, *Meeting Abstracts*, and the Society's newest publication, *ECS Transactions*. Future plans for the DL include an expanded Education section and History Center.

A charitable gift annuity is a way to make a gift to a charity, and still receive an income for yourself or others. In return for a transfer of cash or other property, the charity agrees to pay a fixed sum of money for a period measured by one or two lives. For more information on how you can support ECS and its programs, please visit <http://www.electrochem.org/development/>. ■



Robert P. Frankenthal (left) preparing to sign a charitable gift annuity in the presence of ECS Senior Vice-President Barry MacDougall. Funds from the annuity will be used to support the ECS Digital Library.

John Weidner Named First Editor of *ECS Transactions*

JOHN W. WEIDNER has been named the first Editor of *ECS Transactions* (ECST). The Society's newest publication is an online database that includes full-text content from papers that have been presented at ECS meetings and ECS-sponsored meetings. The papers appearing in ECST are reviewed to ensure that submissions meet generally-accepted scientific standards. ECST was launched in the fall of 2005 and now contains over 2,000 papers.

Professor Weidner received his BS in chemical engineering from the University of Wisconsin-Madison in 1986, and his PhD in chemical engineering from North Carolina State University in 1991 under the direction of Peter S. Fedkiw. He joined the Department of Chemical Engineering at the University of South Carolina (USC) as an assistant professor in 1991. He was promoted to Associate Professor in 1997 and Professor in 2004. He is currently serving as Interim Associate Dean for Research in the College of Engineering and Computing at USC. In 1999-2000 he went on sabbatical and spent a semester at the University of California-Berkeley working with John Newman and a semester at Los Alamos National Laboratory working with Tom Zawodzinski.



John W. Weidner

Professor Weidner's research group has published over 50 refereed journal articles on the synthesis and characterization of electrocatalysts and electrochemically active materials, and the mathematical modeling, design, and operation of electrochemical systems. He has provided extensive service to ECS in such roles as symposium organizer, member of the *Interface* advisory

committee, chair of the Young Authors Award subcommittee, and member of the Battery Division executive committee. Professor Weidner is currently Vice-Chair of the Industrial Electrochemistry and Electrochemical Engineering (IE&EE) Division and advisor to the Energy Technology Division.

"I am honored and excited to serve as the inaugural editor for *ECS Transactions*," said Dr. Weidner. "This is a great new publication that keeps ECS at the forefront of scientific publications. *ECS Transactions* is a modern version of the ECS proceedings volumes (PV), where content from our biannual meetings is brought to the scientific community in a convenient and timely fashion. In this day and age of rapid communication and accelerated scientific advances, it is critical that the technical content of our meetings get recorded and out to the greater scientific community as quickly as possible. ECST allows us to meet the high bar that is being set by the larger scientific community. Due to the hard work of authors, symposium organizers, and ECS staff, all the papers published from our meetings are either available at the meeting or

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Weidner

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within 4 months following it. For the first three meetings in which ECST has been operational (LA, Denver, and Cancun), over 1,500 papers in 75 issues have been published in this short time frame. One third of those papers and 75% of the issues would never have been published in the old PV system, because the number of papers per symposium was too low to justify the high cost of paper editions.

This larger number, and more rapid availability, of papers means a more thorough exchange of ideas."

Weidner went on to say that "The vision for *ECS Transactions* is more than just a new and improved PV. The electronic submission and editorial system in place to process ECST now enables us to publish content from other ECS sponsored activities that would have been difficult if not impossible to do in the

past. For example, in 2007 alone we will publish 5 volumes, in addition to the content from Chicago and Washington. This includes the 30th Fuel Cell Seminar (Honolulu), Solid Oxide Fuel Cells 10 (Nara, Japan), and Microelectronics Technology and Devices – SBMicro 2007 (Rio De Janeiro). All totaled, *ECS Transactions* has had an exciting first 18 months. I see nothing but bigger and better things for years to come." ■

ECS Partners on Scitopia.org



SCITOPIA.ORG, the free, federated search portal created by a partnership of leading science and technology scholarly societies, including ECS, officially launched at the Special Libraries Association's annual conference this June.

Scitopia.org aggregates the entire electronic libraries of its partners, publishers of the content most often cited in patent applications and scholarly scientific works. More than three million documents, primarily peer-reviewed journal content and conference proceedings, dating from the mid-1800s to the present, are searched through this dedicated gateway. Society partner databases are searched in real time, allowing scitopia.org to deliver the Web's most timely sci-tech search results.

In addition to ECS, founding partners include: American Geophysical Union (AGU), American Institute of Aeronautics and Astronautics

(AIAA), American Institute of Physics (AIP), American Physical Society (APS), American Society of Civil Engineers (ASCE), American Society of Mechanical Engineers (ASME), IEEE, Institute of Physics Publishing (IOP), Optical Society of America (OSA), Society of Automotive Engineers (SAE), Society for Industrial and Applied Mathematics (SIAM), and SPIE.

In addition to the published works of its partners, scitopia.org also searches a database of nearly 50 million worldwide patents from the United States Patent and Trademark Office, the Japan Patent Office, and the European Patent Office.

No new subscriptions are needed to use scitopia.org. To access the content, visitors to scitopia.org use a simple, but function-rich interface. Users can search

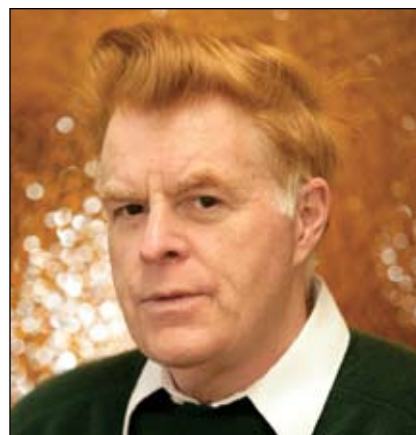
for full text articles using a fielded approach, for example, by article title or author name. Or, they can use it as a discovery tool, narrowed to gather specific publisher content or broadened to scan the complete databases of all the partners. Search results include the article's title, authors, and source. Scitopia.org also includes a "clippings" function that allows researchers to mark and save (or e-mail) articles they want to examine at a later date.

When users find content they want in full text they're directed to the publisher's digital library for access. Researchers at institutions with subscriptions to the content are automatically authenticated and are able to click through to it. Members of partner societies may also be able to access full text, depending upon the association's membership policies. Pay-per-view options allow users without any prior subscriptions to purchase as many articles as they choose. ■

Results of the 2007 ECS Election of Officers and Slate for 2008

The ECS Tellers of Election have announced the results of the 2007 election of Society officers, with the following persons elected: President—Barry MacDougall, National Research Council, Canada; and Vice-President—William D. Brown, University of Arkansas. The terms of D. Noel Buckley, (Vice-President) Paul Natishan, (Vice-President), Petr Vanýsek (Secretary), and John Susko (Treasurer) were unaffected by this election.

At the Board of Directors meeting in Chicago, Illinois, on May 10, 2007, members of the ECS Board of Directors voted to approve the slate of candidates recommended by the ECS nominating



From left to right: Barry MacDougall, President and Bill Brown, Vice-President.

Committee. The slate of candidates for the next ECS election of officers, to be held in January 2008, include: President—D. Noel Buckley; Vice-President (one to be elected)—Peter



Fedkiw and Esther Takeuchi; Secretary (one to be elected)—Johna Leddy and Gautam Pillay. Full biographies and candidate statements will appear in the winter 2007 *Interface*. ■

Division News



The **DIELECTRIC SCIENCE & TECHNOLOGY DIVISION** had another successful meeting in Chicago, which included a four-day symposium on Silicon Nitride, Silicon Dioxide Thin Insulating Films, and Emerging Dielectrics. This was the ninth presentation of this biennial series. A hardcover *ECS Transactions* of all the symposium papers was available at the meeting, and can be purchased (as well as individual papers) online at <http://ecsdl.org/ECST/>. At the next ECS meeting, in October 2007 in Washington, DC, the Division will present a symposium on Atomic Layer Deposition, High-k Dielectrics, and Nanocrystal Embedded Dielectrics. In May 2008, in Phoenix, AZ, they will have symposia on CMP, Dielectrics for Nanosystems, Plasma Processing, and Thermal and Plasma CVD of Nanostructures. The submission deadline of papers for the Phoenix meeting is December 17, 2007.



The **INDUSTRIAL ELECTROCHEMISTRY AND ELECTROCHEMICAL ENGINEERING (IE&EE) DIVISION** conducted its second **OUTREACH PROGRAM** during the recent ECS spring meeting in Chicago. Gerardine Botte (Ohio University), Vijay Ramani (Illinois Institute of Technology, IIT), and Dennie Mah (DuPont Company), all IE&EE Division members; Courtney Beisel (IIT Staff), along with graduate students Sathesh Sambandam (IIT) and Xin Jin and Bryan Boggs (both Ohio University), participated in the program. The event took place at the Nettelhorst School, a local Chicago public elementary school, under the guidance of Jason Antesberger, 6th-8th grade math teacher and Dr. Susan Kurland, Principal. Forty students participated in a fuel cell car competition designed to introduce the youth to new electrochemical technology and its potential future impact on our everyday life by employing active learning techniques. The participants all had fun and IE&EE encourages other Divisions and Sections to consider reaching out, whether at an ECS meeting or other venues.

Also during the Chicago meeting, the IE&EE Division was pleased to present the **2007 NEW ELECTROCHEMICAL TECHNOLOGY (NET) AWARD** to Ballard Power Systems, based on the Ebara Ballard Corporation's residential fuel cell cogeneration system that has been successfully deployed into the Japanese market. Evelyn Lai, Ballard Cogeneration Power Platform Manager, accepted the award plaque as well as the individual key contributor scrolls for Terry Howe, Mike Abley, Greg Knowles, Steve Pratt,

Craig Padberg, and herself. Dr. Lai also presented the NET Award address entitled, "Making Fuel Cells a Commercial Reality." All sponsoring organizations of commercial, new electrochemical

technology are invited to submit their nominations for the 2009 NET Award (see ECS website for award details).

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New Division Officers

New officers for the 2007-2009 term have been elected for the following Divisions.



Energy Technology

Chair

Karim Zaghib, Hydro-Quebec

Vice-Chair

S. R. Narayanan, Jet Propulsion Laboratory

Secretary

Jean St-Pierre, University of North Carolina

Treasurer

Jeremy P. Meyers, University of Texas, Austin



Electronics and Photonics

Chair

Albert Baca, Sandia National Labs

1st Vice-Chair

Yue Kuo, Texas A&M University

2nd Vice-Chair

Pablo Chang, Northrop Grumman

Secretary

Andrew Hoff, University of South Florida

Treasurer

Fan Ren, University of Florida

Members-at-Large

Cor Claeys, IMEC
D. Noel Buckley, University of Limerick
Sorin Cristoloveanu, INEP-INPG
Minatec
George Celler, Padova University
M. Jamal Deen, McMaster University
Manfred Engelhardt, Qimonda
Ulrich Goesele, Max-Planck Institute
Dennis Hess, Georgia Institute of Technology
Chennupati Jagadish, Australian National University
Carlton Osburn, North Carolina State University
George Rozgonyi, North Carolina State University
Masaharu Watanabe, SEZ Japan, Inc.
Laszlo Fabry, Wacker Chemie AG
Howard Huff, Sematech, Emeritus
Bernd Kolbesen, G. W. Goethe University

Gerald Oleszek, University of Colorado
Kenji, Shiojima, NTT Photonics
Jerzy Ruzyllo, The Pennsylvania State University
Rodney Ridley, Fairchild Semiconductor
Robert Fitch, U.S. Air Force Research Lab
Takeshi Hattori, Sony Corporation
Hiroshi Iwai, Tokyo Institute of Technology
Durgamadhab Misra, New Jersey Institute of Technology
Fred Roozeboom, NXP Research
Edward Stokes, University of North Carolina
Jennifer Wang, Northrop Grumman
Junichi Murota, Tohoku University



Organic & Biological Electrochemistry

Chair

Isao Taniguchi, Kumamoto University

Vice-Chair

Albert J. Fry, Wesleyan University

Secretary/Treasurer

James D. Burgess, Case Western Reserve University



Physical and Analytical Electrochemistry

Chair

Hugh C. De Long, U. S. Air Force

Vice-Chair

Paul C. Trulove, U.S. Naval Academy

Secretary/Treasurer

Shelley D. Minteer, Saint Louis University

Members-at-Large

Ingrid Fritsch, University of Arkansas
Thomas A. Zawodzinski, Case Western Reserve University
Robert A. Mantz, U.S. Army Research Office
Syvie Morin, York University



The ECS IE&EE Division sponsored a fuel cell car competition designed to introduce youth to new electrochemical technology. Students at the Nettelhorst School (Chicago) participated in the program.



On behalf of Ballard Power Systems, Evelyn Lai (right) received the 2007 IE&EE Divisions NET Award from Division Chair Dennie Mah.

BRENDA LEE GARCIA-DIAZ (University of South Carolina) received the 2007 H. H. Dow Memorial Student Achievement Award and **MINHUA SHAO** (Stony Brook University) received the 2007 Student Achievement Award. At the ECS fall 2007 meeting in Washington, DC, the IE&EE Division will feature a unique symposium topic entitled, **LEADERSHIP AND ENTREPRENEURSHIP IN ELECTROCHEMICAL ENGINEERING: A TUTORIAL SYMPOSIUM**. Be sure to put this event on your calendars!

The IE&EE Division continues to struggle to find authors for the Division's **REPORT ON THE ELECTROLYTIC**

INDUSTRIES that compiles recent events in the field of industrial electrochemistry and electrochemical engineering and is intended to be published annually in an ECS publication. A key question is, "Do ECS members and the ECS readership place any value on the Report on the Electrolytic Industries?" If you have an interest in this two-year commitment or an answer to our question, please contact Dennie Mah at 1.302.367.6475 or doctor_electro@msn.com.



The **PHYSICAL AND ANALYTICAL ELECTROCHEMISTRY DIVISION (PAED)** will sponsor or co-sponsor six symposia at the upcoming ECS meeting to be held in Washington DC, October 7-12, 2007; and will be sponsoring or co-sponsoring eight symposia at the ECS meeting to be held in Phoenix, AZ, May 18-23, 2008. At the spring meeting in Chicago, Professor Joseph Hupp was presented with the PAED David C. Grahame Award. Prof. Hupp presented his address at the PAED General Session on Monday May 7, 2007. At the 2007 PAED Luncheon, Chair Gessie Brisard presented Past Chair Johna Leddy with a certificate of appreciation recognizing her exceptional service as Chair of the Division.

Re-Visiting Engineerring Day



The fall 2006 issue of *Interface* was dedicated to the topic of education. In it, an article (see p. 47) by Jeffrey B. Nelson and Kavita M. Jeerage reported on this special workshop offered at the University of



Washington's Engineering Open House. Audiences learn how electrochemistry creates thin titanium dioxide films on titanium, why the transparent films look colorful, and walk away with unique titanium

jewelry (earrings or rings). The article featured a "recipe" for creating the jewelry. This past April workshop was offered again to huge crowds.

Photos by Sathana Kitayaporn, University of Washington

Corporate Membership News

ECS has welcomed five new **CORPORATE MEMBERS** so far in 2007. The newest supporters of the Society include Hydro-Québec (Benefactor), SANYO Electric Co., Ltd. (Patron), Mattson Technology (Sponsoring), USHIO Inc. (Sponsoring), and the Asahi Glass Research Center (Sustaining). Two existing Sustaining members have upgraded to the Sponsoring level: Broddarp of Nevada and ZSW.

HYDRO-QUÉBEC generates, transmits, and distributes electricity, mainly using renewable energy sources, in particular hydroelectricity. It also conducts research in energy-related fields and takes an active interest in energy efficiency. Hydro-Québec invests close to 100 M\$ in R&D activities at its Research Institute. The researchers focus on encouraging wiser electricity consumption and optimizing generating, transmission, and distribution facilities in terms of performance and service life. Efforts

are also devoted to the development of a new generation of battery materials for the markets of portables, storage, as well as cleaner transportation.

MATTSON TECHNOLOGY, INC. is the leading supplier of dry strip equipment and the second largest supplier of rapid thermal processing (RTP) equipment in the global semiconductor industry. The company's strip and RTP equipment utilize innovative technology to deliver advanced processing performance and productivity gains to semiconductor manufacturers worldwide for the fabrication of current- and next-generation devices. The company maintains sales and support centers throughout the United States, Europe, and Asia.

Corporate membership is a relationship of great mutual benefit to both member organizations and ECS. If your organization is interested in supporting ECS and receiving the benefits of corporate membership,

please contact Amir Zaman, Director of Membership and Development, at amir.zaman@electrochem.org or 1.609.737.1902, ext. 103.

New Corporate Tutorial Series at ECS Meetings

As ECS continues to develop new ways to engage industry, the Corporate Membership Committee plans to begin a series of tutorials that will address topics of interest to corporate researchers. These tutorials will be organized on Sundays during ECS meetings and run in conjunction with ECS Short Courses.

The first corporate tutorial entitled, **INTELLECTUAL PROPERTY: AN INTRODUCTION FOR RESEARCH SCIENTISTS, ENGINEERS AND TECHNOLOGISTS**, will take place during the fall 2007 ECS meeting in Washington, DC. This tutorial will provide an introduction to the various forms of intellectual property, trade secrets, trademarks, and copyrights, with an emphasis on patents. The objective will be to provide the electrochemist/engineer an appreciation of the patenting process. It will be organized by E. Jennings Taylor, founder and Chief Technical Officer of Faraday Technology Inc., an electrochemical engineering and R&D company, and the Managing Member of Faraday Technology Marketing Group LLC, an intellectual property management firm.

As a new Corporate Membership benefit, employees of Corporate Members will be able to attend this tutorial for free. The cost for attendees who do not work for member organizations will be \$250 for members, \$298 for nonmembers; the cost for students will be \$125. The event is open to all attendees, from corporate, academic, and government fields.

This program is offered in addition to the previously established **HOT TOPIC BREAKFAST**, which will be organized for the third time in Washington with Kesh Narayanan, National Science Foundation, who will speak on "Innovation and Collaboration Between Universities and Small and Large Companies."

If you have any questions about the tutorial, or about the Corporate Membership Committee initiatives, please contact Amir Zaman, Director of Membership and Development, at amir.zaman@electrochem.org or 1.609.737.1902, ext. 103.

ECS Co-Sponsored Conferences

In addition to the regular ECS biannual meetings, ECS and its Divisions and Sections also co-sponsor meetings and symposia organized by individuals and/or other organizations, of interest to the technical audience ECS serves. The following is a list of the co-sponsored meetings for 2007-08.

- **4th PEAKS Conference on Advanced Technology for Wafer Level Packaging**, September 5-7, 2007 (Whitefish, Montana, USA), www.semitool.com/peaks
- **EuroCVD 16**, September 16-21, 2007 (Scheveningen, The Netherlands), www.eurocvd16.nl
- **NACE Northern Area Eastern Conference 2007**, September 24-26, 2007 (Ottawa, Canada), www.nace.org
- **2007 Fuel Cell Seminar**, October 15-19, 2007 (San Antonio, Texas, USA), www.fuelcellseminar.com
- **Ionic Liquids 2007**, October 17-18, 2007 (Prague, Czech Republic), www.intertechpira.com
- **7th ECS International Semiconductor Technology Conference (ISTC 2008)**, March 15-17, 2008 (Shanghai, China), www.ecsistc.org
- **13th Symposium on Polymers**, May 7-9, 2008 (Winterthur, Delaware, USA), www.symposiumonpolymers.com
- **Faraday Discussion 140: Electrocatalysis: Theory and Experiment at the Interface**, July 7-9, 2008 (Southampton, United Kingdom), www.rsc.org/FD140
- **12th International Meeting on Chemical Sensors**, July 13-16, 2008 (Columbus, Ohio, USA), mse.osu.edu/imcs12

To learn more about what an ECS co-sponsorship could do for your conference, including information on ECS's publishing of proceeding volumes for co-sponsored meetings, or to request an ECS co-sponsorship of your technical event, please contact Amir Zaman, Director of Membership and Development, at amir.zaman@electrochem.org or 1.609.737.1902, ext. 103.

