

Young Authors' Symposium Report

ECS Canadian Section Canadienne

The Canadian Section's fourth Young Authors' Symposium (YAS) was held at the University of Guelph on August 12, 2005, organized by Guelph Ph.D. student Thamara Laredo. The Young Authors' Symposium provides a forum for students, postdoctoral fellows, and young scientists to present their work to peers in a relaxed environment. For the first time, the event was organized and run entirely by students. The very successful event comprised 17 student talks, followed by a poster session. Students and postdoctoral fellows from York, Guelph, Western, and Queens Universities participated and presented their work,



Back row, left to right: Jon Goldik, Mohamed Ahmida, Peter Wu, Renkang Zhu, Jeff Hastie, Jamal Baba, Xiaocui Zhao, and Shannon McDowell. Front row, left to right: Li Yan, Susan Zheng, Nuria Garcia, Para Rodriguez, Jigang Zhou, Thamara Laredo, Neeshma Dave, Christa Brosseau, Erin Sheepwash, and Annette Habech.

with students from each of the universities taking a turn at chairing the sessions. Forty-eight students, postdocs, and professors enjoyed the YAS, including the luncheon that was made possible through sponsorships recruited by the organizer. The weather that day prevented the participants from finishing the day with the planned barbeque at the home of Professor Lipkowski, but an enjoyable alternative was found in a pizza party in

the Graduate Student Lounge, courtesy of Peter Tremaine, Dean of Physical and Engineering Sciences. ■



Left: YAS participants enjoying the poster session. Right: "A good time was had by all..."

Gerischer Award

MICHAEL GRÄTZEL received the 2005 Gerischer Award of the ECS European Section. Pictured (from left to right) are **P. KULESZA, G. ERTL, M. GRÄTZEL,** and **D. KOLB.** The award was presented this past July, during a special session that took place at the Gerischer Symposium held at the Max-Planck-Gesellschaft in Berlin, Germany. Prof. Grätzel is presently a professor and the Director of the Laboratory of Photonics and Interfaces at the École Polytechnique Fédérale de Lausanne in Switzerland. The conference was organized by D. Kolb with help of L. Kibler and C. Duvigneau from the University of Ulm, Germany; and it covered various aspects of modern electrocatalysis. The award ceremony started with a classical music performance by G. Ertl (piano) and L. Kibler (flute),

followed by short *laudatio* given by P. Kulesza (chair of the European Section). The award lecture, delivered by Prof. Grätzel, was on "The Magic World of Nanocrystals, Light Energy Conversion, and Storage with Mesoscopic Oxide Electrodes."

The Heinz Gersicher Award is given for significant contributions to the science of semiconductor electrochemistry, photoelectrochemistry, and physical and materials chemistry in general. Michael Grätzel is an outstanding scientist who has already received numerous European American and Japanese awards and academic distinctions (including the title of *Doctor Honoris Causa*) from many prestigious institutions



and international organizations. He has been invited to serve as a member of editorial boards of many highly respected scientific journals and periodicals. His publication record includes over 500 research papers in peer-reviewed scientific journals, 40 reviews or invited book chapters. Michael Grätzel is an inventor or co-inventor of over 20 patents and author or editor of three books. ■

San Francisco

The San Francisco Section held a meeting this past September in Alameda, California. The featured speaker was Ben Feldman, of Abbott Diabetes Care. The topic was "FreeStyle™: A Small-Volume Electrochemical Glucose Sensor;" but an unmentioned subtopic to the talk was commercialization of electrochemical technology.

Blood glucose test strips come in two types, optical and electrochemical. Within the electrochemical strips, most are amperometric sensors. The FreeStyle strip developed by Abbott Diabetes Care is a coulometric sensor. The strip consists of a 300 nL electrolysis chamber bounded on facing surfaces by carbon working and Ag/AgCl counter electrodes. Electrolysis is affected through an enzyme (glucose dehydrogenase) and a mediator (an osmium compound) coated onto the electrode. The glucose concentration is determined by integrating the current over time. The result from the FreeStyle strip is more accurate because the chemistry is insensitive to oxygen; and because coulometric method is insensitive to temperature, blood viscosity, and other factors that affect the reaction rate.

At the beginning of the talk, Dr. Feldman handed out samples of the FreeStyle blood glucose test strips. As he explained the function of the strip, everyone in the audience dissembled the strip and actually saw the various parts. The subject matter was an excellent demonstration on how to make innovative use of common electrochemical principles and turn it into a successful, commercial product.



For the second year in a row, the **SAN FRANCISCO SECTION** has received the Gwendolyn B. Wood Section Excellence Award. Receiving the award from ECS President **BILL SMYRL** (far right) is Section Chair **CRAIG HORNE** (second from right). Also attending the award presentation were Section officers, from left to right: **VENKAT SRINIVASAN** (Secretary), **HOOMAN HAFEZI** (Senior Vice-Chair), and **OANA LEONTE** (Treasurer).

Chicago

The new chair of the Chicago Section, Keryn Lian from Motorola, has organized several technical meetings for the 2005-2006 season, including the following. Giselle Sandi, of Argonne National Labs, for a talk on "Polymer Electrolytes and Hydrogen Storage;" Anima Bose, of Northern Illinois University, on "Low-Temperature Fuel Cell Research for Transportation Applications;" and a speaker from Case Western University in spring 2006.

Korean

The Korean Section met on last spring at Chonnam National University in Gwangju, for a Section symposium. Six oral presentations and four posters we presented on electrodeposition, photoelectrochemical devices, lithium batteries, solar cells, corrosion, and fuel cells. Chi-Woo Lee, the section chair, hosted the evening banquet together with the Korean Electrochemical Society. The next symposium is scheduled for April 2006.

European

In addition to the Gerischer Award presentation (see photo on p. 43), the European Section remains sponsored various European meetings, such as UK Electrochem (University of Northumbria, Newcastle upon Tyne, September 2005; with Ben Horrocks as chair of the organizing committee). The Section plans to extend its sponsorship to the 11th International

Conference on Electroanalysis (ESEAC) to be held in Bordeaux, France, June 11-15, 2006. Alexander Kuhn is a chair of the organizing committee; e-mail: eseac2006@enscpb.fr.

Georgia

The Georgia Section held a half-day symposium on electrochemistry, MEMS, and nanotechnology this past September at the Georgia Institute of Technology. After registration and lunch, the plenary lecture was given by Society Secretary Petr Vanysek (from the Department of Chemistry,

Northern Illinois University) entitled, "Closing on the Structure of Immiscible Liquid-Liquid Interfaces: X-Ray Studies at the Advanced Photon Source." Additionally, Prof. Vanysek gave an overview on the past, the present, and the future of ECS. The plenary lecture was followed by eight student presentations and a poster session with 22 presented posters. Prizes were presented for the best oral and poster presentations to S. Paliwal (Auburn University), V. Anandan (University of Georgia), and J. Wiedemair and Z. Cheng (Georgia Tech). ■

Future Technical Meetings

Next ECS Meeting:

Denver
COLORADO

May 7-12, 2006

October 29-November 3, 2006 • Cancun, Mexico

May 6-11, 2007 • Chicago, Illinois

October 7-12, 2007 • Washington, DC

For more information on these future meetings, contact the Society Headquarters office.

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