



The Alessandro Volta Award

Richard Compton will receive the Alessandro Volta Award of the European Section during the European Section meeting on Monday, October 4, at 1800 in Iolani Suite 3, Tapa Tower. He will present his award address, "Voltammetry Using Electrodes Modified with Random Arrays of Microdroplets," as part of the Liquid-Liquid Interfaces and

Phase Transfer Catalysis Symposium on Wednesday, October 6 in Hibiscus 1&2, Level 2, Kalia Executive Conference Center.

RICHARD COMPTON was appointed lecturer at Oxford University in 1985, and awarded the title of professor of chemistry in 1996. He has published in excess of 500 papers and three books, including the undergraduate text, *Electrode Potentials* (Oxford University Press, 1996). He is a fellow of the Royal Society of Chemistry (RSC), has an honorary doctorate from the Estonian Agricultural University, and was presented with the RSC awards for electrochemistry and electroanalysis in 1994 and 1999, respectively. He will be the RSC Tilden Lecturer in 2005-2006. He is editor-in-chief of the journal, *Electrochemistry Communications*. He serves on the editorial boards of *Electroanalysis*, *Journal of Electroanalytical Chemistry*, *Ultrasonics Sonochemistry*, *Journal of Solid State Electrochemistry*, and *Talanta*.

Compton has broad research interests in electrochemistry, interfacial chemistry, and electroanalysis, including spectroelectrochemistry notably electrochemical ESR. His recent research has focused on the use of dual activation techniques. Thus quantitative approaches have been developed in which electrodes are subjected to insonation, laser heating, activation and/or ablation, or heating via rf induced eddy currents or microwave absorption by adjacent layers of solution. The use of ultrafast voltammetry allied to microdisk arrays has permitted physical fundamental insights into the nature of interfacial cavitation (bubble lifetimes, size distributions, etc.). Electrode heating via irradiation from a nanosecond pulsed laser leads to current or potential transients, which provide either a generic method for the determination of the potential of zero charge of solid electrodes, or the potential of maximum entropy of the double layer, respectively. Such pulsed heating also gives access to the fastest interfacial rate constants, such as electron transfer from adsorbed hydrogen on Pt(111).

Compton's current work is focused on the use of ultrasound to promote electroanalysis, especially via stripping voltammetry, and to permit bulk biphasic electrochemical measurements. The latter complement voltammetry conducted using arrays of microdroplets supported on electrodes, which have been shown to provide a reliable method for the interrogation of liquid-liquid phase kinetics. Finally, hydrodynamic voltammetry under high mass transport conditions is being exploited to measure the fastest interfacial rate constants with unrivaled precision and accuracy. ■



Guelph graduate student Thamara Laredo chats with Prof. Vlad Zamlynnny of Acadia University, a previous winner of the Canadian Section Student Award.



YAS participants take in the poster session at the end of a full day of presentations.

Canadian Section

This past May, a Young Authors' Symposium (YAS) was held by the Canadian Section in London, Ontario. This forum offers graduate students, postdoctoral fellows, and other young electrochemists and solid-state scientists an opportunity to present their work in the form of a talk or a poster. The latest YAS, organized by Jamie Noël and chaired by graduate students from the D. W. Shoesmith research laboratory, consisted of 16 excellent oral presen-

tations and four posters from students of the University of Western Ontario, University of Guelph, York University, and Memorial University of Newfoundland. The 42 symposium participants included students and professors from these and several other universities, as well as professional scientists from CANMET and the National Research Council of Canada.



Officers of the 2004-2005 San Francisco Section (from left to right)—Thomas Dinan, past-chair; Craig Horne, vice-chair; Venkat Srinivasan, councilor; Nerine Cherepy, chair; Oana Leonte, treasurer; Derek Cunningham, councilor; and On Chang, Recording Secretary.

San Francisco

The Section had a meeting in June in Hayward, CA. A presentation, "Nanomaterials in Fuel Cells and Batteries," was given by Craig Horne, vice-president of Kainos Energy. Dr. Horne first talked about the application in batteries. The advantages of nanomaterials depend on the type of battery. In most systems, it enhances the rate capability through higher surface area. In some systems, it increases the capacity through the action of surface sites or amorphous phases. In some other systems, there is little advantage in using nanomaterials. Dr. Horne also talked about making nanometer-size particles. The final topic was the application of nanomaterials to optical amplification with erbium doped boron phosphorus silicate glass, which cannot be made with CVD. Laser reaction deposition (LRD) has been successful in fabricating glass and offers much more flexibility in glass composition.

Korea Section

The Section held a symposium in April at the Korea Institute of Energy Research in Daejeon. Six talks were presented on battery, corrosion, solar cell, and photolithography. The next symposium is scheduled for October 2004. The Section is establishing a student award. ■

Section Services

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