### SECTION NEWS

Which is held at the ECS Bylaws in place, some changes have been made to the governance of the Sections program. A representative from each of the Divisions and Sections is invited to attend the Individual Membership Committee meeting, which is held at the ECS biannual meetings, to share their activities and challenges. Topics to be included on the meeting agenda should be forwarded to Karla T. Stein, Director of Membership and Development, at karla.stein@ electrochem.org one month prior to the ECS meeting.

#### Canada

The Canadian Section's 2009 spring meeting, "Frontier in Electrochemistry," organized by Jacek Lipowski and Gregory Jerkiewicz, was held at the Hamilton Convention Center from May 31 to June 1, and included the Canadian Society of Chemistry (CSC). The invited international speakers were Dieter M. Kolb from Germany, who spoke on "Structure-Reactivity Relations in Electrochemistry," and Hector Abruña from the U.S., who spoke on "Surfaces, Interfaces, and Morphology Effects in Electrocatalysis."

At the annual general meeting held on June 1 in Hamilton, Ontario, the following officers were elected:

- Chair: Aicheng Chen, Lakehead
  - University
- First Vice-Chair: Sylvie Morin, York University
- Second Vice-Chair: Alexandre Brolo, University of Victoria

Secretary: Janine Mauzeroll,

- Université du Québec at Montréal Treasurer: Ian Burgess, University of
- Saskatchewan Councilor: Dan Bizzotto, University
- of British Columbia Incumbent Councilor: Gregory
  - Jerkiewicz, Queens

The Section reported that the 2009 recipient of the Lash Miller Award is Aicheng Chen from Lakehead University in Ontario. The Canadian Section Student Award winner for 2008 is Arash Shahryari from McGill University in Montréal and the winner for 2009 is Mohamed Naser from McMaster University in Hamilton.

#### Detroit

Christian Fierro from Energy Conversion reported that the Detroit Section met on May 14 at Lawrence Technological University, in Southfield, Michigan. Benny Reichman from Ovonic Battery Company gave a well-attended talk entitled, "Ovonic Renewable Hydrogen (ORH)-Low Temperature Hydrogen Production from Renewable Fuels." Conventional hydrogen production technology today is steam reformation of natural gas. The process requires steam at high temperatures and significant amount of heat for operation. He presented a one-step process that operates at significant lower temperatures (130-300°C) than conventional steam reforming or gasification processes (800-1000°C). ORH uses alkaline materials as reactants to facilitate the reforming

of organic matters to hydrogen. He reported that, unlike conventional reforming process, the ORH process does not form CO or  $CO_2$  gases. Instead, pure hydrogen is formed at high yields with carbonate salt as the only byproduct of the reaction. He mentioned that the ORH reactor can be scaled down for production of hydrogen in a distributed manner with a projected cost of hydrogen lower than conventional technology.

On June 17, Dawn Bernardi, from Ford Motor Company, closed a vey busy year of the Detroit Section with a wellattended talk entitled, "Mathematical Modeling of Pulse and Relaxation Behavior in Lithium-ion Batteries." She presented results from a mathematical model of a Li-ion cell derived from first-principles of electrochemical kinetics, ionic, electronic transport, and thermodynamics. Her model results compared favorably with experimental behavior of cells designed for hybridelectric-vehicle applications. She showed that model results suggest that the behavior of the cell overvoltage is dominated by solid-state diffusion of lithium in the positive electrode. She stated that the elucidation of the factors dominating cell overvoltage can aid in the development of optimized systems that deliver maximized fuel-economy.

Overall the Detroit session held nine interesting talks over the past year in the areas of fuel cell batteries, supercapacitors, and hydrogen energy. The speakers were from both industry and academia and the average attendance at each talk was around 25-30.

# Looking for Section News

We welcome the opportunity to share with our membership, the scientific advances and activity news from your Section. Please forward information on educational programs (already held or upcoming), the names of award winners, and results of your elections to Karla Stein at karla. stein@electrochem.org so we may include in future issues of *Interface*.



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