

## Chile Section



**ARTURO SQUELLA**, Co-Chair of the recently-formed ECS Chile Section has been appointed Head of the Chemistry Panel of the Comisión Nacional de Investigación Científica y Tecnológica (the Chilean version of NSF.)

This panel reviews more than 200 proposal applications for funding in chemistry from scientists in Chile. Squella has been an

active member of ECS since 2000, and is also a member of the ISE. Squella has published more than 200 research papers in peer-reviewed scientific journals (H factor 23) in the area of organic electrochemistry, electrochemical sensors, and the electrochemistry of drugs; and he has edited a book. He has supervised ten PhD thesis students, and at present, is the Vice-Dean of the Faculty of Chemical Science and Pharmacology, University of Chile, Santiago.

The Section is co-sponsoring the Chilean Symposium of Electrochemistry IV, which is organized by the Electrochemistry Division

of the Chilean Chemical Society. This event takes place every two years in a resort not far from Santiago de Chile. This year, the event will take place in November 28-30 in Olmué and will include invited speakers **ANGEL CUESTA** from Spain, **ROMEU ROCHA-FILHO** from Brazil, and **VICTOR CONSTANTIN** from Portugal. The event has been organized by scientists from the Pontificia Universidad Católica de Chile, in Santiago with **MARIA ANGÉLICA DEL VALLE** serving as President and **RODRIGO DEL RIO** as Chair.



*Symposium participants at a previous Chile Section Symposium of Electrochemistry held in Villa Alemana, Chile.*

## Detroit Section

The Detroit Section held their final meeting of the season by hosting a student poster session on June 12. More than 30 graduate students shared their research with attendees in an informal setting, allowing attendees an opportunity to learn about a variety of topics from solar cells and battery materials to the use of microelectrodes and cyclic voltammetry as a physiological diagnostic tool. Attendees also had an opportunity to hear two graduate students present their research in short oral presentations. The event was attended by nearly 70 people who enjoyed the opportunity to discuss electrochemistry over a refreshing Michigan-made beer. The evening concluded with officer elections, voting for the best presentation, and prizes for the winning students.

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*Detroit Section prize winners (right to left): RINCHEN LAMA, JOANNA BIRBECK, and JUNSI GU. (Photo courtesy of Kent Snyder.)*

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Section leaders congratulated **JUNSI GU** of the University of Michigan, the grand prize winner, as well as **JOANNA BIRBECK** and **RINCHEN LAMA** from Wayne

State University, who also were voted as prize-worthy. The Section hopes to make the poster session an annual event as

attendees appreciated the informal learning opportunity and chance to encourage those shaping the future of electrochemistry.

## Israel Section



**EMANUEL PELED** celebrating his 70<sup>th</sup> birthday at *Israelectrochemistry 2012*.

The Israel Section held its annual meeting “Israelectrochemistry 2012” ([golod.tau.ac.il/](http://golod.tau.ac.il/)) at Tel Aviv University on July 2. The national meeting was organized by **DIANA GOLODNITSKY** and was dedicated to **EMANUEL PELED** on the occasion of his 70<sup>th</sup> birthday.

The Israelectrochemistry 2012 meeting focused on different aspects of electrochemistry and included nearly 160 participants engaged in the fields of both basic and applied electrochemistry. The theme of the 2012 meeting was “Electrochemistry for a Better Future.”

Professor Peled is most famous for the development of the solid electrolyte interphase model for alkali-metal nonaqueous batteries. He pioneered the development of the rechargeable lithium-sulfur battery, the calcium-thionyl chloride battery and, together with Rafael, the lithium molten-salt (thermal) batteries. The research achievements of Prof. Peled and his group include the development of single-ion-conducting ordered polymer electrolytes, 3D-microbatteries, direct-methanol, direct-ethylene glycol FCs, a high-power hydrogen/bromine fuel cell, and a novel molten-sodium/air system.

Three world-known experts participated in the meeting including **STEFANO PASSERINI** from Muenster, **SANJEEV MUKERJEE** from Boston, and **STEVE GREENBAUM** from New York. The meeting had 21 invited and

contributed talks and 26 posters that covered theoretical and applied aspects.

The symposium was supported by the Baruch Zinger Foundation, Tadiran Batteries, Tel Aviv University Center for Nanoscience and Nanotechnology, Ramot Ltd. at Tel Aviv University, EnStorage Ltd., Gordon Center for Energy Studies, Bargal Analytical Instruments, CellEra Ltd., Better Place, Maccor, New Road Agencies and BioAnalytics.

The Baruch Zinger Foundation awarded two prizes for the best student oral presentations and three for the best posters. Awards for the oral presentations were given to **MENNY SHALOM** from Bar Ilan University on “Illumination Intensity-Dependent Electronic Properties in Quantum Dot Sensitized Solar Cells” and to **RONI HADAR** from Tel Aviv University on “Electrode Processes in Rechargeable Sodium–Air Cells.” The prizes for posters were awarded to **MORAN BALASH** from the Technion, **MARIANO D. SUSMAN** from the Weizmann Institute of Science, and **TOMER NOYHOUSER** from the Hebrew University of Jerusalem.

## Japan Section

The ECS Japan Section aggressively cooperates with international conferences and workshops held in Japan. The Nineteenth International Workshop on Active-Matrix Flat Panel Displays and Devices (AM-FPD’12) was held July 4-6, 2012, in Kyoto. This international workshop was established in 1994 to present the latest research and development in AM-LCD technologies and their applications. The Japan Section and the AM-FPD award committee selected a winner for the young researcher award this year. The award will be presented at the 2013 workshop. Recently, the scope has been widened to the other types of flat panel displays, materials for displays, related physical phenomena and novel electronics systems such as thin-film transistors, thin-film materials and devices, and photovoltaic technologies. In 2013, this international workshop will mark its 20<sup>th</sup> anniversary.

The 2012 International Conference on Solid State Devices and Materials (SSDM 2012) was also supported by the Japan Section and held Sept. 25-27, 2012, in Kyoto. The SSDM has provided a good opportunity

to present and discuss key aspects of solid state devices and materials since 1969. The conference tentatively has 10 subcommittees in core areas and five subcommittees in strategic areas, which provide continual focus and guidance on the future direction of solid state devices and materials research. This year, three plenary talks, 62 invited papers, 330 contributed oral papers, 238 posters, and 34 late news papers were presented.

The PRiME 2012 meeting, a joint meeting of ECS and the Electrochemical Society of Japan, was held on Oct. 7-12, in Honolulu, and was strongly supported by the Japan Section. In addition, the Japan Section also cooperated with eight local academic workshops of the Electrochemical Society of Japan.



*At the 2012 International Conference on Solid State Devices and Materials are (from left to right):* **KAZUO KYUMA**, Mitsubishi Electric Corp., SSDM12 Organizing Committee Chair, and **TAKASHI ITO**, Chair of the ECS Japan Section.

## New England Section

The New England Section's 2012 lecture series began on July 18, 2012. **PRABHAKAR SINGH**, Director and UTC Endowed Chair Professor of the Center for Clean Energy Engineering at the University of Connecticut, delivered a talk at UTC Power entitled, "From Fundamental Understanding to Engineered SOFC Systems Development." Nearly 40 attendees from UTC and across the New England area attended the lecture. Professor Singh started his presentation with some

recent exciting news on the applications of stationary fuel cells. He then focused on the current status of development, synthesis and characterization of cell and stack component materials, including anode and cathode electrodes, interconnects, and seals. In addition, systems requirements in terms of fuel processing, cleanup, and thermal management, and challenges associated with long term electrical performance degradation were also intensively discussed in the lecture.



**PRABHAKAR SINGH** presenting a lecture on SOFC to the New England Section.

## San Francisco Section

The 2012 Daniel Cubicciotti Student Award was presented at the June 12 meeting of the ECS San Francisco Section. The panel of judges for the award consisted of **JOSEPH GORDON** (award committee Chair), **ROBERT KOSTECKI**, and **OLANA LEONTE**.

**ALLISON ENGSTROM** won the award this year. She is pursuing her PhD in Fiona Doyle's group at the University of California at Berkeley. She received a plaque honoring Daniel Cubicciotti and a check for \$2000.

Two honorable mention awards were presented to **MATTHEW McDOWELL** of Stanford University (Yi Cui's group) and **XIONGWU KANG** of the University of California at Santa Cruz (Shaowei Chen's group). Each honorable mention winner received a check for \$500.

**THOMAS DINAN**, the San Francisco Section Chair, gave a short talk describing Daniel Cubicciotti's accomplishments and the purpose of the student award named after Dr. Cubicciotti. Dr. Dinan then presented Ms. Engstrom with the Cubicciotti award. Mr. McDowell and Mr. Kang were presented with their honorable mentions.

Following the award ceremony each winner gave a presentation on his or her doctoral research. Ms. Engstrom's talk was entitled, "Exploring the Cycle Behavior of Electrodeposited Vanadium Oxide Supercapacitor Electrodes in Various Aqueous Environments." Mr. McDowell's talk was entitled, "Volume Expansion and Fracture of Nanostructured Si Anodes during Electrochemical Lithiation/Delithiation." Mr. Kang's talk was entitled, "Alkyne-Stabilized Ruthenium Nanoparticles."



From left to right: **XIONGWU KANG**, **MATTHEW McDOWELL**, **ALLISON ENGSTROM**, **ROBERT KOSTECKI**, and **THOMAS DINAN** at a recent meeting of the ECS San Francisco Section. (Photo by Simon Lux, the Section 2<sup>nd</sup> Vice Chair.)

## Taiwan Section

The Taiwan Section held its annual Electrochemistry Workshop on August 1, 2012, at the International Convention Center, National Taiwan University of Science and Technology. The workshop was organized by the Section Chair, **Nae-Lih Wu**, and Secretary **Wei-Ren Liu**. It

consisted of lectures on the subjects of electrochemistry fundamentals, solar cells, Li-ion batteries, sensors, electroplating, and fuel cells, which were given by **Chi-Chang Hu**, **Kuo-Chuan Ho**, **Jerry Wang**, **Shen-Ming Chen**, **Ming-Der Ger**, and **Ming-Chang Yang**, respectively. More than

100 attendees from academia and industry attended the workshop. The purpose of the workshop was to promote electrochemical education and technology in Taiwan. The event has been held annually since 2008. ■