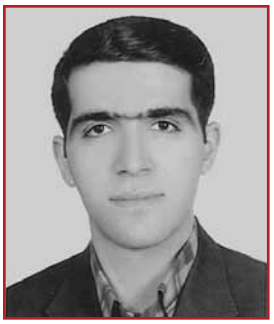
ECS 2010 Summer Fellowship Winners

Each year ECS awards Summer Fellowships to assist students in continuing their graduate work during the summer months in a field of interest to the Society. Congratulations to the following 2010 Summer Fellowship recipients. The reports of the 2010 Summer Fellows will appear in the winter issue of *Interface*.

Binh-Minh Nguyen is the recipient of the 2010 ECS Edward G. Weston Summer Fellowship. He received an engineering degree from Ecole Polytechnique, France, in 2005, and is currently an electrical engineering PhD candidate at the Center for Quantum Devices (CQD) at Northwestern University. His thesis is part of a project at CQD to develop a novel material, called Type II InAs/GaSb superlattices, for infrared detection. Mr. Nguyen is investigating the theoretical properties of the novel quantum system; designing appropriate device architectures, and experimentally fabricating infrared detectors that can outperform currently existed devices. He invented a new superlattice design called M-structure and new device architectures that brought more than one order of magnitude of improvement in the detector's performance, and still holds the world record for this material. He is the author/co-author for three book chapters and has more than forty scientific papers published in refereed journals and proceedings. Mr. Nguyen is recipient of a SPIE Educational Scholarship in Optical Science and Engineering in 2009 and 2010.

Brian Adams is the recipient of the 2010 ECS Colin Garfield Fink Summer Fellowship. Mr. Adams graduated with an HBSc degree in chemistry from Lakehead University (Thunder Bay, ON, Canada) in 2008. He is currently an MSc student under the supervision of Aicheng Chen at Lakehead University. His master's project involves the synthesis and study of Pd-containing nanomaterials for hydrogen electrosorption. He has published eight peer-reviewed journal articles and given several presentations at national and international conferences on the topics of materials for wastewater treatment, fuel cell catalysis, and hydrogen sorption. He has also won several awards, including the High Output and Publication Excellence (HOPE) Award from Lakehead University and an Ontario Graduate Scholarship.



Mohammad Reza Khajavi is the recipient of the 2010 ECS Joseph W. Richards Summer Fellowship. He received his bachelor's and master's degrees from Shiraz University in Iran. He was awarded the National University of Singapore Research Scholarship to start his PhD in January 2007 under the supervision of Daniel John Blackwood in the Department of Materials Science and Engineering. His research is focused on electrodeposition of one-dimensional ZnO nanostructures. Mr. Khajavi was awarded an ECS student travel grant to present the paper, "Single-Step Electrodeposition of ZnO Nanotube Arrays on TCO Glass Substrates," at the 216th ECS Meeting in Vienna last October. Recently, he joined CIDETEC (Centre of Electrochemical Technologies) in Spain, for a six-month period to work on the electrodeposition of hierarchical ZnO nanostructures, for which he received the summer fellowship, under the supervision of Ramón Tena-Zaera.

2010 Summer Fellowship Committee

Vimal Chaitanya, *Chair*
New Mexico State University, USA

Enrico Traversa
National Institute for Materials Science, Tsukuba, Japan

Kalpathy Sundaram,
University of Central Florida, USA

Battery Division 2010 Student Research Award Recipient

Yi-Chun Lu has been named the Battery Division's 2010 Student Research Award recipient. Yi-Chun Lu received a BS degree in materials science and engineering from National Tsing-Hua University, Hsinchu, Taiwan in June 2007. Currently, she is third-year graduate student in the group of Yang Shao-Horn, in the Electrochemical Energy Laboratory, Department of Materials Science and Engineering at MIT. Lu's general research interest is to apply a fundamental understanding to design new materials for energy storage and conversion. Her PhD thesis study is to understand the role of the surface chemistry on Li storage, with a special interest in surface modification of positive electrodes, chemistry of the electrode-electrolyte interfaces for Li-ion batteries, oxygen electrokinetics (*e.g.*, oxygen reduction reaction and oxygen evolution reaction) in aprotic electrolyte systems, and the design of bifunctional catalysts for rechargeable Li-air batteries. So far, Lu is the first author on five scientific articles (*J. Am. Chem. Soc.*, *Chem. Mater.*, *Electrochem. Solid-State Lett.*, *J. Electrochem. Soc.*, and *Biosens. Bioelectron.*). She was named a Martin Fellow, an MIT fellowship from the Martin Family Society of Fellows for Sustainability for the academic year 2009/2010 in May 2009.

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Corrosion Division 2010 Morris Cohen Graduate Student Award

Pouria Ghods has been named the recipient of the Corrosion Division's 2010 Morris Cohen Graduate Student Award. He received his BSc degree in 2001 and his MSc degree in 2004, both in civil engineering from University of Tehran, Iran. He joined the PhD program at Carleton University and conducted research on corrosion of infrastructure with O. Burkan Isgor as his advisor. He completed part of his experimental work at CANMET Materials Technology Laboratories (MTL) in Canada. He obtained his doctorate degree in civil engineering materials in June 2010.

The main goal of Dr. Ghods' PhD study was to carry out multi-scale investigations of the formation and chloride-induced breakdown of passive films on steel in the highly alkaline environment of concrete. The multi-scale investigation was designed to bridge length scales from the nanoscale to the macroscopic. In addition to traditional electrochemical methods such as electrochemical impedance spectroscopy (EIS), he used highly specialized experimental techniques, such as transmission electron microscopy (TEM) of the samples taken using focused ion beam (FIB) technique and X-ray photoelectron spectroscopy (XPS) as well as atomic force microscopy (AFM) to characterize the passive film properties both in the absence and presence of chloride.

Dr. Ghods has forty peer-review publications including thirteen journal articles. He received several awards including the NACE Foundation Academic Award in 2009, an NSERC Postdoctoral Fellowship in 2010, and the Jag Mohan Humar Graduate Student Fellowship in 2007. His research interests are numerical modeling of steel corrosion in concrete, microscopic studies of passivity and pitting corrosion, non-destructive corrosion measurement of rebars in concrete structures, and evaluation of coatings performance in aggressive environments. He may be reached at pghods@connect.carleton.ca.

Start a Student Chapter!

ECS currently has 20 student chapters around the world, which provide students an opportunity to gain a greater understanding of electrochemical and solid-state science, to have a venue for meeting fellow students, and to receive recognition for their organized scholarly activities. Students interested in starting a student chapter should contact ecs@electrochem.org for details.

Call for Nominations

The **ECS Summer Fellowships** were established in 1928 to assist students during the summer months in pursuit of work in the field of interest to ECS. The next fellowships will be presented in 2011.

Nominations and supporting documents should be sent to Vimal Chaitanya, New Mexico State University, Office of the VP for Research, MSC 3RES - Box 30001, Las Cruces, NM 88033-8001, USA, e-mail: vimalc@nmsu.edu. **Materials are due by January 1, 2011.**

The **Student Research Award of the Battery Division** was established in 1962 to recognize promising young engineers and scientists in the field of electrochemical power sources and consists of a scroll, a prize of $1,000, waiver for the meeting registration, travel assistance to the meeting if required, and membership in the Battery Division as long as a Society member. The next award will be presented at the ECS fall meeting in Boston, Massachusetts, October 9-14, 2011.

Nominations and supporting documents should be sent to Robert Kostecki, Lawrence Berkeley National Laboratory, 1 Cyclotron Rd., MS 70R0108B, Berkeley, CA 94720-8168, USA; tel: 510.486.6002, e-mail: r_kostecki@lbl.gov. **Materials are due by March 15, 2011.**

The **Morris Cohen Graduate Student Award of the Corrosion Division** was established in 1991 to recognize outstanding graduate research in the field of corrosion science and/or engineering. The Award, for outstanding master's or PhD work, is open to graduate students who have successfully completed all the requirements

How to apply...

For details on each award—including a list of requirements for award nominees, and in some cases, a downloadable application form—please go to the ECS website (www.electrochem.org) and click on the "Awards" link. Awards are grouped in the following sub-categories: Society Awards, ECS Division Awards, Student Awards, and ECS Section Awards. Please see the individual award call for information about where nomination materials should be sent; or contact ECS headquarters.

Visit **www. electrochem.org** and click on ***"Awards" link***.

for their degrees as testified to by the student's advisor, within a period of two years prior to the nomination submission deadline. The award consists of a scroll, a prize of $1,000, and travel assistance to the meeting where the award will be presented (up to $1,000).The next award will be presented at the ECS Meeting in Boston Massachusetts, October 9-14, 2011.

Nominations and supporting documents should be sent to Scott Lillard, Los Alamos National Laboratory, PO Box 1663, Ms G755, Los Alamos, NM 87544-0600, USA; e-mail: lillard@lanl.gov **Materials are due by December 15, 2010.**

The **Student Award of the Canadian Section** was established in 1987 for a student pursuing, at a Canadian University, an advanced degree in any area of science or engineering in which electrochemistry is the central consideration, and consists of an amount determined by the Executive Committee of the Canadian Section not to exceed $1,500. The next award will be presented at an upcoming Section meeting.

Nominations and supporting documents should be sent to Sylvie Morin, York University, Department of Chemistry, CCB 124, 4700 Keele Street, Toronto, ON, Canada ; tel: 4167362100 (22303); e-mail: smorin@yorku.ca. **Materials are due by February 28, 2011.**

Travel Grants

Several of the Society's Divisions offer travel assistance to students and young faculty members presenting papers at ECS meetings. For details about travel grants for 218th ECS Meeting in Montréal, QC, Canada (May 1-6, 2011), please see the Montréal Call for Papers in the summer 2010 issue of *Interface*; or visit the ECS website: www.electrochem.org/student/travelgrants.htm. Please be sure to e-mail the student travel grant contact as each Division requires different materials for approval. The deadline for submission for the spring 2011 travel grants is November 15, 2010.

Awarded Student Memberships Available

ECS Divisions are offering Awarded Student Memberships to qualified full-time students. To be eligible, students must be in their final two years of an undergraduate program or enrolled in a graduate program in science, engineering, or education (with a science or engineering degree). Postdoctoral students are not eligible. Awarded memberships are renewable for up to four years; applicants must reapply each year. Memberships include article pack access to the *Journal of The Electrochemical Society* online, *Electrochemical and Solid-State Letters* online, *ECS Transactions* online, and a subscription to *Interface*. To apply for an Awarded Student Membership, use the application form below or refer to the ECS website at: www.electrochem.org/awards/student/student_awards.htm#a.

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