Boston Student Chapter



The Boston chapter is rapidly growing in membership and includes members from University of Massachusetts Boston, University of Massachusetts Lowell, Boston College, Boston University, and Northeastern University. The chapter looks forward to broadening the knowledge of electrochemistry to the Boston community. Activities include an annual seminar during fall semester with professorial and guest speakers from surrounding industries and an outreach program directed toward youth in the community to inspire interest in science.

Boston ECS Student Chapter officers, from left to right, are Erin Kingston, Jonathan Doan, Austin Arroco, Andy Vong, Fernando Gonzales, Joseph Romeo, and Eugene Smotkin (Faculty Advisor).

British Columbia Student Chapter

Young Electrochemists Symposium (YES) 2013

The ECS British Columbia (BC) Student Chapter held its first annual BC Young Electrochemists Symposium on June 21, 2013 at the University of British Columbia (UBC) in Vancouver. The one-day symposium included presentations by well-known scientists as well as a student poster competition with the help of the following organizations: Simon Fraser University (SFU) Chemistry Graduate Society; UBC Graduate Student Society; UBC Clean Energy Research Centre; SFU Science Graduate Student Society; SFU Science; SFU Chemistry; UBC Engineering; and UBC Chemical and Biological Engineering. The attendees came from UBC, SFU, University of Victoria (UVic), and Queen's University. The following presentations were given: Gregory Jerkiewicz, Professor at Queen's University, gave a talk titled, "Platinum Electrochemistry;" Dan Bizzotto, Professor at UBC, gave a talk titled, "Gold Electrochemistry;" Andrea Sudik, Manager at Fuel Cell Stack Component Research from Ford Motor Company and Automotive Fuel Cell Corporation, gave a talk on "Perspective on the Fuel Cell Industry;" and, Robert O'Brien, Professor Emeritus at UVic, gave a talk on "Magneto-hydrodynamic Rapid Stirring of



Organizing Committee of YES 2013: Brandy Kinkead (Vice Chair of the ECS BC Student Chapter), Mohammad Saad Dara (Chair of the ECS BC Student Chapter), Pooya Hosseini Benhangi (Treasurer of the ECS BC Student Chapter), and Andrew Wang (Secretary of the ECS BC Student Chapter)

Electrolytes." Three cash prizes were also awarded to the best posters by Conrad Rizal (1st), Karen Chan (2nd), and Yajuan Hao (3rd) in the poster competition. Further, the next symposium (YES 2014) will be held in the June 2014.

One Day Seminar by David W. Shoesmith

The ECS BC Student Chapter hosted David W. Shoesmith, Professor at University of Western Ontario, for a seminar on November 13th,

2013 at UBC. Prof. Shoesmith is an expert in corrosion studies. He has worked for Atomic Energy of Canada Limited and continues to work with corrosion in radioactive environments in collaboration with a number of industrial partners. He is currently the Director of Surface Science Western. His seminar was titled "The Spectroscopic and Microscopic Characterization of Electrochemically Reactive (Corroding) Surfaces." After the seminar, the group gathered to have an informal get together with Prof. Shoesmith and talk more about his research.



Part of the attendees, invited speakers and organizers of the YES 2013 at the Chemical and Biological Engineering Department, UBC.



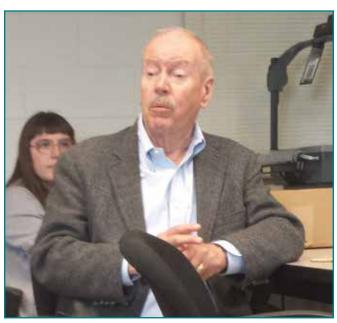
DAVID **W.** SHOESMITH and members of the ECS BC Student Chapter at the Chemistry Department, UBC.

Rensselaer Polytechnic Institute Student Chapter

On April 21, 2014, the newly established Rensselaer Polytechnic Institute (RPI) student chapter of The Electrochemical Society held its inaugural meeting. Twenty five interested students attended to learn more about the ECS from the student board and to listen to

a presentation by ECS Fellow David Duquette. This presentation included information about the broad history of electrochemistry at RPI and some current research projects related to the topic. Several students have now signed up for membership and the chapter plans to host a speaker from Knolls Atomic Power Laboratory in the fall.





DAVID DUQUETTE (right), ECS Fellow and RPI professor, tells interested students about the many opportunities available to student members and about joining the ECS and the long history of electrochemistry within the Materials Science and Engineering Department.



University of Maryland Student Chapter

The University of Maryland Student Chapter of ECS has continued its interaction with United States Congress by participating in Congressional Visits Day organized by Materials Advantage on April 8, 2014. The student members met with senators, representatives, and their staff to stress the importance of stable scientific funding and to thank them for the commitments they have already made to promoting STEM fields. Students also inquired how they can support congressional objectives, whether by offering technical advice or by participating in opportunities for academic outreach in their home states.

A group of students visited the offices of Senator Ben Cardin (D-MD), Senator Pat Toomey (R-PA), Rep. John Delaney (D-MD), and Rep. Donna Edwards (D-MD). The members of congress demonstrated bipartisan support for STEM education and its implicit ties to scientific research. Each had unique motivations and perspectives. Rep. Delaney, the only former CEO of a publicly traded company in the 113th Congress, stressed that studies show that funding STEM education programs can offer a substantial return on investment for decades. Senator Toomey's aide mentioned that STEM education is important in Central Pennsylvania to ensure that members of the community can fill the multitude of technical jobs opening up along the Marcellus Shale. He pointed out that

through the recession, this was one of the few areas where alreadylow median incomes managed to increase rather than plummet. Rep. Edwards, in whose district several of the students live, encouraged the group to participate in her upcoming College and Career Fair in October to relate how engaging scientific research is to high school students. Senator Cardin's aide related that changes in the nation's energy technology, a topic of interest for many of the UMD students, often require twenty-year contracts, so our technology needs to inspire that level of confidence in its longevity. He also related that the testimonies of researchers have proven extraordinarily helpful in communicating the impacts of government funding, or lack thereof: NIH researchers described how, at the start of the government shutdown, they were forced to abandon long-term cancer research projects and kill thousands of laboratory animals due to uncertainly of when they could return to their labs to feed them. The ripple effects, both positive and negative, are not often obvious and must be presented to our nation's policy makers.

Federal funding is the lifeblood of academic research at institutions like the University of Maryland. Though this connection is clear to PI's competing for grants, it can be more abstract to students performing the research. Connecting with their congressmen and women helps students to understand the burgeoning needs of congress as well as relate their personal anecdotes about their impacts on society through scientific research. The UMD chapter looks forward to continued interaction with congress throughout their careers.



UMD Chapter members with Maryland Congresswoman Donna Edwards. From left to right: Chris Pellegrinelli, Colin Gore (Chapter President), Rep. Donna Edwards, Tom Hays (Chapter Vice President) and Mohammed Hussain.

University of Texas – Austin Student Chapter

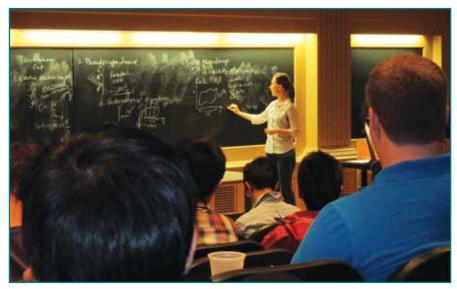
The University of Texas at Austin (UT-Austin) ECS Student Chapter closed out the fall 2013 semester by helping to organize an awards ceremony and luncheon for the newest ECS Honorary Members, Allen J. Bard and John B. Goodenough. Traditionally, the awards are presented at ECS National Meetings, but this year a special awards luncheon was held at UT-Austin since it is the home institution of both recipients. Many scientific colleagues, including former graduate students and postdoctoral associates of the awardees, traveled long distances to celebrate the occasion. The Electrochemical Society also generously extended the invitation to our ECS Student Members who were very fortunate to have the opportunity to share in this historic event.

The Chapter's first outreach activity this year was to continue its involvement with Explore UT, an annual day-long open house for the university where children and adults alike visit from all over the state of Texas (many arriving by the busload) to fill the campus with their contagious excitement to learn science and engineering from around 400 different programs. This year the UT-Austin ECS Student Chapter provided interactive demonstrations that educated our guests on both electrochemisty and solid state science. The most popular activity for the children was building crystal structures such as rock-salt and graphene/graphite out of marshmallows and toothpicks. The young scientists in the making were also fascinated with the Tollen's silver mirror demo as they observed a pristine silver mirror develop from the mixing of colorless solutions right before their eyes; the "magic" of electrochemistry. Additional demonstrations included a miniature hydrogen powered fuel cell car and plating copper on zinc screws by galvanic exchange to educate the audience on battery fundamentals. The Chapter also carried out these demonstrations later in March at Meridian Science Day, which is held each year at a local elementary school in Round Rock, TX.

Last year the UT-Austin Chapter introduced the ECS Student Chalk Talk series. A chalk talk is an informal presentation about one's research whereby the presenter can only use the chalkboard as a visual aid. Audience members are encouraged to interrupt at any time with questions and trigger interesting discussions about the research topic. Once the presenter has provided theoretical background and introduces the major findings of his/her research, the presentation then evolves into more of a group discussion and Q&A session led by the presenter. The Chapter's 3rd Chalk Talk featured Veronica Augustyn, who led the discussion based on her research as a graduate student investigating electrochemical energy storage with pseudocapacitive oxides. Due to the positive reception of these interactive presentations, the Chapter has decided to adopt multiple student chalk talks into its yearly activities and further implement them as a means to showcase the outstanding work of graduate students and recruit more ECS members.

The ECS Student Chapter at UT-Austin, established in 2007, is a student-run organization whereby students from various academic

programs in science and engineering can interact with each other and discuss each other's research in electrochemical and solid state sciences. The current officers are Josephine Cunningham (President), Donald Robinson (Vice President), Daniel Redman (Treasurer), and Tyler Mefford (Secretary). The faculty adviser is Arumugam Manthiram. The chapter presently has 21 registered student members from the Cockrell School of Engineering and the College of Natural Sciences at UT. Our Chapter continues to grow in membership and is currently planning next year's seminars and chalk talks along with continuing its outreach activities for science education. More information about the ECS Student Chapter at UT-Austin can be found at http://studentorgs.engr.utexas.edu/ecs/Home.html.



Spring 2014 Chalk Talk by Veronica Augustyn on electrochemical energy storage with pseudocapacitive oxides.



The University of Texas at Austin Student Chapter officers and Dr. Augustyn. From left to right: Daniel Redman, Donald Robinson, Veronica Augustyn, and Josephine Cunningham.

Student Awards

Call for Nominations

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

Visit www.electrochem.org

and click on the "Awards" link.

"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.



The ECS Outstanding Student Chapter Award (formerly The Gwendolyn B. Wood Section Excellence Award) was established in 2012 to recognize distinguished student chapters that

demonstrate active participation in The Electrochemical Society's technical activities, establish community and outreach activities in the areas of electrochemical and solid state science and engineering education, and create and maintain a robust membership base. Please visit the student award page for complete rules and nomination requirements. Nominations are being accepted for the 2015 Award, which will be presented at the ECS fall meeting in Phoenix, Arizona, October 11-16, 2015.

Nominations and supporting documents should be sent to *Outstanding Student Chapter Award*, c/o The Electrochemical Society, 65 S. Main Street, Building D, Pennington, NJ 08534; Phone: +1.609.737.1902; e-mail: awards@electrochem.org. Electronic submission of nomination packets is preferred. **Materials are due by March 31, 2015.**



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 2015. Please

visit the ECS website for more information.

Nominations and supporting documents should be sent to ECS Summer Fellowships, c/o The Electrochemical Society, 65 S. Main Street, Building D, Pennington, NJ 08534; Phone: +1.609.737.1902; e-mail: awards@electrochem.org. Electronic submission of nomination packets is preferred. Materials are due by January 15, 2015.



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 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 fall meeting in Phoenix, Arizona, October 11-16, 2015.

Nominations and supporting documents should be sent to *Corrosion Cohen Award*, c/o The Electrochemical Society, 65 S. Main Street, Building D, Pennington, NJ 08534; Phone: +1.609.737.1902; e-mail: awards@electrochem.org. Electronic submission of nomination packets is preferred. **Materials are due by December 15, 2014.**



The Energy Technology Division Graduate Student Award was established in 2012 to recognize and reward promising young engineers and scientists in fields pertaining to the Division. The awards are intended to

encourage the recipients to initiate or continue careers in this field. Up to two recipients chosen will receive an appropriately worded certificate as well as an amount of \$1,000, payable to the recipient. In addition, the recipient will receive a waiver of student registration, and un-reimbursed travel expenses to attend the Spring ECS meeting, an amount not to exceed \$1,000 in order to accept the award. The next award will be presented at the ECS spring meeting in Chicago, Illinois, May 24-28, 2015.

Nominations and supporting documents should be sent to *Energy Technology Student Award*, c/o The Electrochemical Society, 65 S. Main Street, Building D, Pennington, NJ 08534; Phone: +1.609.737.1902; e-mail: awards@electrochem.org. Electronic submission of nomination packets is preferred. **Materials are due by September 1, 2014.**



The H. H. Dow Memorial Student Award of the Industrial Electrochemistry and Electrochemical Engineering Division was established in 1990 to recognize promising young engineers and scientists in the

fields of electrochemical engineering and applied electrochemistry. The award consists of a scroll and a prize of \$1,000 for educational purposes. The next award will be presented at the ECS spring meeting in Chicago, Illinois, May 24-28, 2015.

Nominations and supporting documents should be sent to *IEEE Dow Student Award*, c/o The Electrochemical Society, 65 S. Main Street, Building D, Pennington, NJ 08534; Phone: +1.609.737.1902; e-mail: awards@electrochem.org. Electronic submission of nomination packets is preferred. **Materials are due by September 15, 2014.**



The STUDENT ACHIEVEMENT AWARD OF THE INDUSTRIAL ELECTROCHEMISTRY AND ELECTROCHEMICAL ENGINEERING DIVISION was established in 1989 to recognize promising young engineers and scientists in the field of

electrochemical engineering and to encourage the recipients to initiate careers in this field. The award consists of a scroll and a prize of \$1,000 for educational purposes. The next award will be presented at the ECS spring meeting in Chicago, Illinois, May 24-28, 2015.

Nominations and supporting documents should be sent to *IEEE Dow Student Award*, c/o The Electrochemical Society, 65 S. Main Street, Building D, Pennington, NJ 08534; Phone: +1.609.737.1902; e-mail: awards@electrochem.org. Electronic submission of nomination packets is preferred. **Materials are due by September 15, 2014.**

TRAVEL GRANTS

Several of the Society's Divisions offer travel assistance to students and young professionals presenting papers at ECS meetings. For details about travel grants for the 226th ECS meeting in Cancun, Mexico, please see the Cancun Call for Papers; or visit the ECS website: www.electrochem.org/student/travelgrants.htm. Please be sure to click on the link for the appropriate Division as each Division requires different materials for travel grant approval prior to completing the online application. You must submit your abstract and have your abstract confirmation number in order to apply for a travel grant. Apply for travel grants using the online submission system (links found on the travel grant web page). If you have any questions, please email travelgrant@electrochem.org. The deadline for submission for fall 2014 travel grants is July 1, 2014.

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 ECS Digital Library, and a subscription to Interface. To apply for an Awarded Student Membership, use the application form on page 85 or refer to the ECS website at: www.electrochem.org/awards/student/student_awards.htm#a.

Start a Student Chapter!

ECS currently has 37 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 may contact membership@electrochem.org for details.