2007 H. H. Dow Student Achievement Award of IEEE

Brenda L. García-Diaz has been named the 2007 H. H. Dow Student Achievement Award of the Industrial Electrochemistry and Electrochemical Engineering Division. García-Diaz received her BS in chemical engineering from the University of Puerto Rico at Mayaguez in 2001. As an undergraduate, García-Diaz interned at Pharmacia/Upjohn and participated in a NSF-REU program in environmental catalysts at the University of South Carolina under Professor Michael Amiridis. She obtained an MS in environmental engineering from the University of Puerto Rico under the direction of Professor Jaime Benitez in 2003. Her master's thesis was written on the use of a parallel plate electrochemical reactor for the removal of lead from groundwater. This work was performed in collaboration with the U.S. Army Corps of Engineers at the Water Ways Experiment Station in Vicksburg, MS.

García-Diaz's interest in electrochemistry carried her back to the Department of Chemical Engineering at the University of South Carolina where she is currently a PhD candidate under the guidance of Professor John Weidner. Her primary field of research is in Direct Methanol Fuel Cells (DMFCs). García-Diaz's research is focused on understanding the individual losses in a DMFC, modeling of these individual losses and methanol crossover, as well as development of novel Nb-doped TiO_2 electrocatalyst supports. She has worked with industry members on DMFC related projects in the NSF Center for Fuel Cells at USC. Her work has also involved international collaboration with researchers at Cambridge and the Frauenhofer Institut. She may be reached at: garciadi@engr.sc.edu.

2007 IEEE Student Achievement Award

Minhua Shao has been named the recipient of the 2007 Student Achievement Award of the Industrial Electrochemistry and Electrochemical Engineering Division. Shao earned a BS in chemistry in 1999 and an MS in wlectrochemistry in 2002, both from Xiamen University in China; and a PhD in materials science and engineering from State University of New York at Stony Brook (SBU) in December 2006. Shao performed his doctoral research under the guidance of Dr. Radoslav Adzic at Brookhaven National Laboratory (BNL). His doctoral research focused on understanding the reaction mechanisms of fuel cell reactions by surface enhanced infrared absorption spectroscopy (SEIRAS) and developing platinum-free or low-platinum electrocatalysts for oxygen reduction reaction (ORR) that would significantly lower the cost of fuel cells.

Shao has also received the Mow Shiah Lin Award from BNL, a Travel Grant Award for the 210th ECS Meeting from Physical and Analytical Electrochemistry Division, a Poster Session Award at the 2006 Joint NSLS/CFN Users' Meeting, was a First Place Poster Winner at the Workshop on Synchrotron Catalysis Consortium, and received the Presidential Fellowship from SBU and the Jinxiong (NORTHPOLE) Award from Xiamen University.

Currently, Shao is a research associate working with Dr. Adzic at BNL. His research interests include designing and developing novel electrocatalysts for oxygen reduction, methanol and ethanol oxidation and *in situ* characterizing electrocatalysts by x-ray absorption spectroscopy (XAS) and SEIRAS. Shao has over 25 peer-reviewed publications. He may be reached at minhua@gmail.com.

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 "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 **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 $1000 for education expenses. The next award will be presented at the ECS spring meeting in Phoenix, AZ, May 18-23, 2008.

Nominations and supporting documents should be sent to Gerardine Botte, Ohio University, Russ College of Engr. & Tech., 183 Stocker Center, Athens, OH 45701, USA, tel: 740.593.9670, e-mail: botte@bobcat.ent.ohiou.edu. **Materials are due by September 15, 2007**.

The **Student Achievement Awards 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. The next award will be presented at the ECS spring meeting in Phoenix, AZ, May 18-23, 2008.

Nominations and supporting documents should be sent to Gerardine Botte, Ohio University, Russ College of Engr. & Tech., 183 Stocker Center, Athens, OH 45701, USA, tel: 740.593.9670, e-mail: botte@bobcat.ent.ohiou.edu. **Materials are due by September 15, 2007**.

Student News

Proton Exchange Membrane Fuel Cells Symposium Presents Outstanding Student Paper Awards

Kawahara

Waje

Litster

At the ECS fall meeting in Cancun, Mexico, in November 2006, the Physical and Analytical Electrochemistry, Energy Technology, and Industrial Electrochemistry and Electrochemical Engineering Divisions hosted a symposium focused on **Proton Exchange Membrane Fuel Cells**. This symposium was organized by T. Fuller, C. Bock, T. V. Nguyen, M. F. Mathias, T. D. Jarvi, H. A. Gasteiger, V. Ramani, S. J. C. Cleghorn, E. M. Stuve, and T. A. Zawodzinski. Since its inception in 1995, the PEMFC symposium has continued to grow; the 2006 occurrence was the largest to date with well over 200 invited and contributed talks and posters. The symposium was held over five full days with parallel sessions focused on materials, systems aspects, and durability. The generous support for his symposium by the industrial sponsors—DuPont, W. L. Gore and Associates, Toyota, PEMEAS, 3M, General Motors, UTC Fuel Cells, Johnson Matthey, Nissan, Tanaka Kikinzoku Kogyo, and Toshiba—allowed for the support of nine student travel grants. In addition, outstanding student/postdoc presentation awards of $500 were made to the following in each of the three topic areas.

Shuya Kawahara, of the Yokohama National University received an award for his paper in the Durability Section, "Deterioration of Platinum Catalyst Under Potential Cycling." This paper co-authored by S. Mitsushima, K. Ota and N. Kamiya discussed RRDE experiments used to elucidate the mechanism of Platinum dissolution.

Mahesh Waje, of the University of California, Riverside, received an award for his paper in the materials section, "Effect of Catalyst Support Morphology on PEMFC Performance." This paper, co-authored by W. Li, Z. Chen, and Y. Yan, described the evaluation of fuel cell electrodes based on Pt on a cup-stacked carbon nanotubes catalyst.

Shawn Litster, of Stanford University, received an award for his paper in the systems section, "Performance Analysis of Air-Breathing Fuel Cells." This paper, co-authored by N. Djilali, described a theoretical analysis of an air-breathing PEM fuel cell with a non-planar microstructural architecture.

Student Travel Grants

Several of the Society's Divisions offer travel assistance to students presenting papers at ECS meetings. For details about travel grants for the fall 2007 meeting in Washington, DC, visit the ECS website: www.electrochem.org/students/travel_grants.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 fall 2007 travel grants is May 18, 2007.**

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 subscriptions to the *Journal of The Electrochemical Society* online, *Electrochemical and Solid-State Letters* online, and *Interface*. To apply for an Awarded Student Membership, use the application form below or refer to the ECS website at: https://www.electrochem.org/awards/applications/online/awardedmembership.asp.

ECS Awarded Membership Application

ECS Divisions are offering Awarded Student Memberships to qualified fulltime students. To be eligible, students must be in their final two years of an undergraduate program or be 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 subscriptions to the *Journal of The Electrochemical Society* online, *Electrochemical and Solid-State Letters* online, *Interface* online, and a CD-ROM of the *Journal* and *Letters*.

Personal Information

Name: _____ Date of Birth: _____

Home Address: _____

_____

Phone: _____ Fax: _____

Email: _____

School Information

School: _____

(please include Division and Department)

Address: _____

_____

Undergraduate Year (U) or Graduate Year (G) - circle one: U3 U4 G1 G2 G3 G4 G5

Major Subject: _____ Grade Point Average: _____ out of possible:

Have you ever won this award before? YES_____ NO If yes, how many times?_____

Divisions (please select only one):

- ❑ **Battery**
- ❑ **Corrosion**
- ❑ **Dielectric Science & Technology**
- ❑ **Electrodeposition**
- ❑ **Electronics and Photonics**
- ❑ **Energy Technology**
- ❑ **Fullerenes, Nanotubes, and Carbon Materials**
- ❑ **High Temperature Materials**
- ❑ **Industrial Electrochemistry & Electrochemical Engineering**
- ❑ **Luminescence & Display Materials**
- ❑ **Organic & Biological Electrochemistry**
- ❑ **Physical and Analytical Electrochemistry**
- ❑ **Sensor**

Signatures

Student Signature: _____ Date: _____

Faculty member attesting to eligibility of full time student:

Faculty Member: _____ Dept.: _____

E-mail Address: _____ Date: _____