#### **Student News**



The 2005 Oronzio de Nora Industrial Electrochemistry Fellowship of The Electrochemical Society has been awarded to **NICHOLAS MANO** of The University of Texas. This is the second year that Dr. Mano has received this honor. Established in 2003 to assist a postdoctoral scientist or engineer in the research of the field of industrial electrochemistry, the fellowship of \$25,000 for one year, twice renewable based on successful research progress as judged by the Award's Committee, is the largest in the field.

Nicolas Mano was born and educated in France. He received

## ECS Oronzio de Nora Industrial Postdoctoral Fellowship

his MSc in chemistry and physics in 1997 and his PhD in 2001 from the University of Bordeaux I. His doctoral thesis, under the supervision of Alexander Kuhn was on affinity-assembled multi-layers for dehydrogenase-based biosensors. In his thesis he developed a class of nitrofluorenone-derived redox mediators, allowing the rapid electrooxidation of NADH at a potential as low as -50 mV vs. Ag/AgCl with a bimolecular rate constant exceeding 10<sup>4</sup> M<sup>-1</sup> s<sup>-1</sup>. His building of a welldefined functional redox mediator/ Ca<sup>2+</sup>/NAD<sup>+</sup>/enzyme multilayer at an electrode/electrolyte interface was recognized as the Best Thesis in Chemistry by the Aquitaine Section of the French Chemical Society. In 2001, Dr Mano joined the research group of Adam Heller at the University of Texas in Austin as a postdoctoral fellow. In Austin he designed the first effective electrocatalyst for the

four-electron reduction of O2 to water under physiological conditions, which he applied in glucose oxidizing-O<sub>2</sub> reducing membrane-less biofuel cells. He built the smallest biofuel cell operating under physiological conditions and producing 0.44 mW cm<sup>-2</sup> at +0.52 V. He then showed the functioning of the miniature cell in a living plant, a grape. His work on biofuel cells was recognized by the 2003 Luigi Galvani Prize of the Bioelectrochemical Society, awarded bi-annually to a researcher under the age of 35, and by the 2004 Oronzio De Nora Foundation Prize of the International Society of Electrochemistry on Electrochemical Energy Conversion.



#### 2005 H. H. Dow Memorial Student Award

The 2005 H. H. Dow Memorial Student Award of the Industrial Electrolysis and Electrochemical Engineering Division was presented to Vijay Ramani (left), a PhD student from the University of Connecticut and now assistant professor at Illinois Institute of Technology. Established in 1990 to recognize promising young engineers and scientists in the fields of electrochemical engineering and applied electrochemistry, the award was made possible by a generous contribution from the Dow Chemical Foundation. Also present were Dennie Mah (center), of DuPont, and IE&EE Vice-Chair; and John Weidener (right), of the University of South Carolina, and IE&EE Secretary/Treasurer.

#### 2005 Summer Fellowship Award Subcommittee

Robin L. McCarley, *Chair* Louisiana State University Paul Bohn

University of Illinois

Dan Feldheim North Carolina State University

Adrian Michael University of Pittsburgh **John Stickney** University of Georgia

Jay Switzer University of Missouri

**David Wipf** Mississippi State University

The 2005 Summer Fellowship reports will appear in a future issue of Interface.



### 2005 Student Research Award of the Battery Division

**CHARLES DELACOURT** is working toward his PhD in materials chemistry at the University of Picardie Jules Verne in Amiens, France under Prof. C. Masquelier. His thesis topic, "Synthesis of Positive Electrode Materials for Li Batteries by Solution Chemistry," is scheduled for defense in October of 2005. In addition to his research work, he teaches courses in thermochemistry, crystallochemistry, analytical chemistry, and fuel cells at the University of Picardie Jules Verne.

Delacourt received his DEA (equivalent to MSc) in 2002 from the University Pierre & Marie Curie in Paris, France. The degree was awarded by an internship of six months at Laboratoire d'Electrochimie et Chimie Analytique in Paris under D. Lincot. His internship topic was electrodeposition and characterization of cadmium ditelluride layers. He was ranked number one, with honors.

Since 2002, Delacourt has been working with the preparation of new positive electrode materials for lithium batteries by using "soft chemistry" synthesis. This work, which is aimed at preparing new compounds (or well-known compounds but with tailored properties) to design new electrode materials, has allowed, up to now, to face more fundamental concerns such as extensive characterizations of Li+ insertion/deinsertion mechanisms and transport properties through the use of many experimental techniques. His work focuses on the polyanionic materials, especially olivinetype phosphates.



Photo courtesy of Brookhaven National Laboratory

#### 2005 Morris Cohen Graduate Student Award of the Corrosion Division

DEV CHIDAMBARAM was born in 1976 in Madras, India. In 1998, he obtained a bachelor's degree in chemical and electrochemical engineering. Chidambaram's graduate work in electrochemistry and surface science was advised by C. R. Clayton and G. P. Halada of the Materials Science and Engineering Department at the State University of New York (SUNY) at Stony Brook. He earned a master's degree in 2000 for his work on the corrosion behavior of thermal sprayed coatings. His doctoral dissertation focused on understanding the surface chemistry and corrosion behavior of aerospace aluminum copper alloys and chromate conversion coatings. He has used the National Synchrotron Light Source extensively to aid in his research. Chidambaram graduated in December, 2003 as a President's Distinguished Doctoral Student. Concurrently, he also pursued his interests in biomedical engineering to earn a second master's degree in 2001. Chidambaram has over 26 peer-reviewed publications and 21 scientific presentations.

Chidambaram has also received the Corrosion Division's travel award for the 203rd Meeting, the Sigma Xi excellence in research award, graduate research awards from the New York Society for Applied Spectroscopy (NYSAS), the American Vacuum Society (AVS), and the Society for Applied Spectroscopy (SAS). Recently, he was chosen by the Nobel Laureates Foundation to participate in the 55th Meeting of the Nobel Laureates in Lindau, Germany.

Chidambaram joined the Environmental Sciences Department at Brookhaven National Laboratory as a Goldhaber Distinguished Fellow in 2004. This prestigious fellowship is awarded to candidates with exceptional talent and credentials, who have a strong desire for independent research at the frontiers of their fields. Chidambaram is also an adjunct professor at Stony Brook. Apart from teaching at SUNY, he also advises graduate students. His research interests lie in the applications of electrochemistry to materials, biological, and environmental sciences. Dr. Chidambaram can be contacted via email at dc@bnl.gov.

#### **Call for Nominations**

The **ECS SUMMER FELLOWSHIPS** were established in 1928 to assist a student during the summer months in the pursuit of work in the field of interest to The Electrochemical Society, and consist of a prize of no less than \$4,000. The next fellowships will be announced on **April 1**, **2006**.

Nominations and supporting documents should be sent to Robin McCarley, Department of Chemistry, Choppin Laboratories of Chemistry, Louisiana State University, Baton Rouge, LA 70803, USA; tel. 225.578.3361, e-mail: echem@.lsu.edu. Materials are due by January 1, 2006.

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 a \$1,000, and membership in the Battery Division as long as a Society member. The next award will be presented at the ECS fall meeting in Cancun, Mexico, October 28-November 3, 2006.

Nominations and supporting documents should be sent to Robert Kostecki, Lawrence Berkeley National Laboratory, 1 Cyclotron Rd # 62-203, Berkeley, CA 94720-8028, USA; tel. 510.486.6002, e-mail: r\_kostecki@lbl. gov. Materials are due by March 15, 2006.

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, and consists of a scroll, a prize of \$1,000, and travel assistance to the meeting of the award presentation (up to \$1,000). The next award will be presented at the ECS fall meeting in Cancun, Mexico, October 29-November 3, 2006.

Nominations and supporting documents should be sent to Douglas C. Hansen, University of Dayton Research Institute, Materials Engineering Division, 300 College Park, Dayton, OH 45469-0120, USA; tel. 937.229.4380, e-mail: douglas. hansen@udri.udayton.edu. Materials are due by **December 15, 2005**.

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 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 Guenter A. Scholz, University of Waterloo, Physics Department, Waterloo, ON N2L-3G1, CANADA; e-mail; scholz@uwaterloo.ca. Materials are due by February 28, 2006.

#### **Call for Nominations**

For details on each awardincluding 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 ELECTROCHEMICAL SOCIETY MONOGRAPH SERIES

The following volumes are sponsored by The Electrochemical Society, Inc., and published by John Wiley & Sons, Inc. They should be ordered from: The Electrochemical Society, Inc., 65 South Main St., Pennington, NJ 08534-2839, USA.

Electrochemical Systems (3rd edition) by John Newman and Karen E. Thomas-Alyea (2004) 647 pages. ISBN 0-471-47756-7. \$115.00

Modern Electroplating (4th edition) by M. Schlesinger and M. Paunovic (2000) 832 pages. ISBN 0-471-16824-6. \$184.00

Atmospheric Corrosion (2nd edition) by C. Leygraf and T. Graedel (2000) 354 pages. ISBN 0-471-37219-6. \$110.00

**Uhlig's Corrosion Handbook (2nd edition)** *by R. Winston Revie (2000)* 1300 pages. ISBN 0-471-15777-5. \$255.00

**Semiconductor Wafer Bonding** *by Q. -Y. Tong and U. Gösele (1998)* 297 pages. ISBN 0-471-57481-3. \$120.00 **Fundamentals of Electrochemical Deposition** by M. Paunovic and M. Schlesinger (1998)

301 pages. ISBN 0-471-16820-3. \$110.00

Corrosion of Stainless Steels (2nd edition) by A. J. Sedriks (1996) 437 pages. ISBN 0-471-00792-7. \$120.00

Synthetic Diamond: Emerging CVD Science and Technology Edited by K. E. Spear and J. P. Dismukes (1994) 688 pages. ISBN 0-471-53589-3. \$175.00

Electrochemical Oxygen Technology by K. Kinoshita (1992) 444 pages. ISBN 0-471-57043-5. \$275.00

ECS Members will receive a discount. Invoices for the cost of the books plus shipping and handling will be sent after the volumes have been shipped. All prices subject to change without notice.

#### Awarded Student Memberships Available

ECS Divisions are offering Awarded **STUDENT MEMBERSHIPS** to qualified fulltime students. To be eligible, students must be in their final two vears of an undergraduate 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 online. To apply for an Awarded Student Membership, use the application form below or refer to the ECS website at www. electrochem.org/student/student.htm.

#### **Student Travel Grants**

Several of the Society's Divisions offer travel assistance to students presenting papers at Society meetings. For details about travel grants for the spring 2006 ECS meeting in Denver, Colorado, please visit the ECS website: www.electrochem.org/student/ travelgrants.htm. Please be sure to e-mail the student grant contact as each Division requires different materials for approval. **The deadline for submission is January 3, 2006**.

# Looking for Student News

ECS takes an active interest in the affairs of its Student Members, and we are always interested in hearing from you about your interests, activities, and accomplishments.

Send all correspondence to:

ENTERFACE 65 South Main Street, Pennington, NJ 08534-2839, USA Tel: 609.737.1902, Fax: 609.737.2743 E-mail: interface@electrochem.org

#### The Electrochemical Society **UP** 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 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* online.

Name:							
Home Address:							
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School Address:							
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Have you won this award before? - cire	cle one: Yes No If yes,	how many time	s?				
Signature of Student:							
Faculty Member attesting to eligibility	of student:						
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Divisions (please check one):							
□ Battery	Energy Technology	Luminescence & Display Materials					
Corrosion	<ul> <li>Fullerenes, Nanotubes, and Carbon Materials</li> <li>High Temperature Materials</li> </ul>		Organic & Biological Electrochemistry				
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