

ECS and the Chinese Society of Electrochemistry

In April 2007, former ECS President Mark Allendorf signed a Letter of Understanding between **ECS** and the **CHINESE SOCIETY OF ELECTROCHEMISTRY** (CSE). The objective of the letter was to initiate plans for an exchange of information and collaborative technical activities such as meetings and publications, that would attract participation from ECS and CSE scientists with technical interests in solid-state and electrochemical science and technology.

The first collaborative program between the two societies involves CSE co-sponsorship of the next Pacific Rim Meeting on Electrochemistry (PRiME), which will be held from October 12-17, 2008. As part of their

sponsorship role, CSE will select two students to receive a grant to attend the meeting and present a paper in one of the 57 different symposia.

The CSE recently held elections and voted into office two new chairs and two elected-chairs, who took office on November 1, 2007. They are Zhong-Fan Liu of Peking University and Tian-Hong Lu of Changchun Institute of Applied Chemistry of CAS as the new chairs; and Shi-Gang Sun of Xiamen University and Li-Jun Wan of the Institute of Chemistry of CAS as the elected-chairs. For more information about CSE, go to: www.electrochem.cn/English/index.htm.

The ECS Bookstore Has Been Upgraded and Improved!

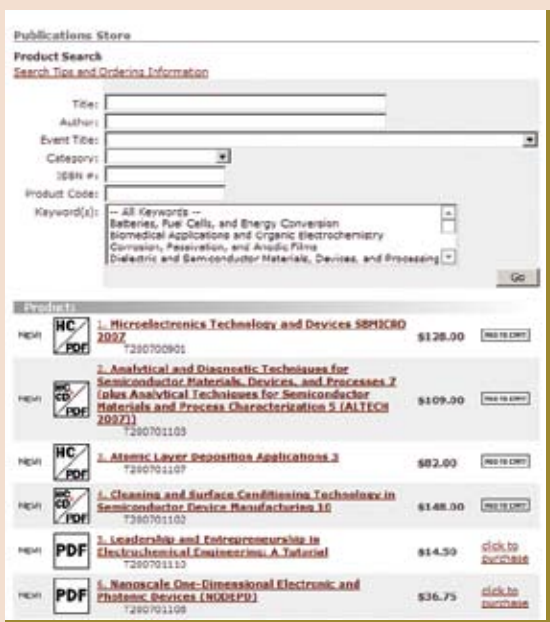
ECS is pleased to announce the redesign of the ECS Bookstore, which now offers a central location to browse and purchase ECS books including *ECS Transactions*, proceedings volumes, *Meeting Abstracts*, and monographs.

For the first time ever, ECS publications dating back to 1967 have been organized into an easy-to-search database. Users can now locate materials by title, editor, event, category, ISBN, product code, or keyword. Icons are displayed beside each title to indicate the available format(s) such as hardcover, PDF, and CD-ROM. All recently published titles are labeled as "New!" Clicking on the main link for a title will display additional information such as the description, pages, year published, and the list prices for all available formats; and links are provided to any further information such as alternate formats, individual papers, and/or a Table of Contents.

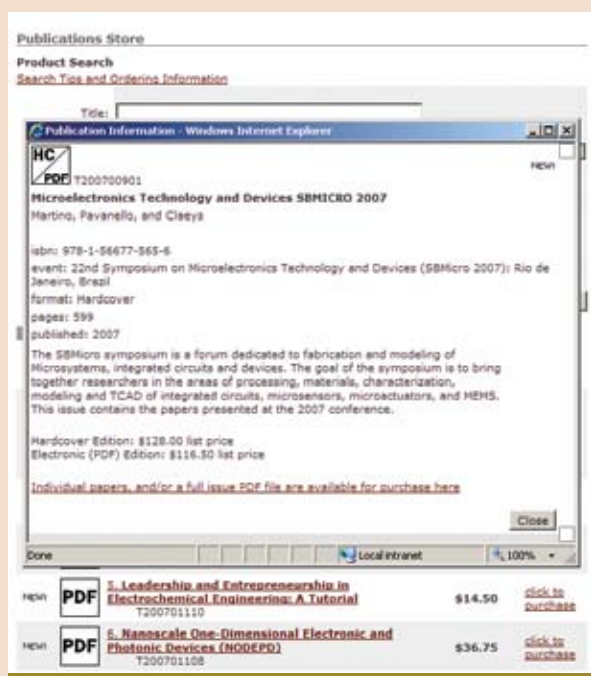
The Bookstore also offers a secure e-commerce "shopping cart" for purchasing titles and/or formats sold directly by ECS.

The "Add to Cart" link enables the purchase of a title directly from ECS. Although certain titles and/or formats are not sold directly by ECS, they can still be found in the Bookstore. These titles have a "Click to Purchase" link that goes directly to the site that sells the title. Out-of-print titles also carry a link to an outside vendor, offering the ability to purchase these older books.

To access the Bookstore homepage, please visit <http://www.electrochem.org/dl/bookstore.htm>. You can also continue to visit the Digital Library (<http://ecsd.org/>), which remains the home for all ECS publications: the *Journal of The Electrochemical Society*, *Electrochemical and Solid-State Letters*, *Meeting Abstracts*, *ECS Transactions*, *Interface* magazine, the proceedings volumes series, and ECS monographs. Once you enter the Bookstore, details on how to browse and purchase titles can be found in the "Search Tips and Ordering Information" link.



Several types of information can be used to locate ECS titles, with all recently-published titles labeled as "New!" Thumbnails also indicate in which format(s) a title is available.



Titles link to further product information.

Division Officer Slates Announced

New officers for the 2008-2010 term have been nominated for the following Divisions. All election results will be reported in the summer 2008 issue of *Interface*.



Dielectric Science & Technology Division

Chair

Durga Misra, New Jersey Institute of Technology

Vice-Chair

Kalpathy Sundaram, University of Central Florida

Secretary

Oana Leonte, Lam Research

Treasurer

Dolf Landheer, National Research Council- Canada

Awards Chair

Hazara Rathore, IBM Microelectronics

Membership Chair

Ana Londergan, Qualcomm MEMS Technologies

Symposium Chair

Katalin Voros, University of California, Berkeley

Members-at-Large

Gautam Banerjee
Albert Bergendahl
William Brown
Vimal Desai Chaitanya
Stefan De Gendt
Jamal Deen
John Flake
Merrill Garnett
Dennis Hess
Hiroshi Iwai
P. C. Joshi
Samares Kar
Paul Kohl
Artur Kolics
G. Swami Mathad
Meyya Meyyappan
Yaw Obeng
R. Ekwah Sah
Sudipta Seal
P. Srinivasan
Mahendra Sunkara
John Susko
Robin Susko
Ravi M. Todi
Jerry Woodall
Kerstin Worhoff
Jian Zhang



Fullerenes, Nanotubes, and Carbon Nanostructures Division

Chair

Dirk Guldi, University of Erlangen-Nurnberg

Vice-Chair

R. Bruce Weisman, Rice University

Secretary

Jean-François Nierengarten, Laboratoire de Chimie de Coordination

Treasurer

Francis D'Souza, Wichita State University

Members-at-Large

Prashant Kamat, University of Notre Dame
Shunichi Fukuzumi, Osaka University
Karl M. Kadish, University of Houston
Nazario Martin, Universidad Complutense de Madrid
Maurizio Prato, University of Trieste
David Schuster, New York University
Lon Wilson, Rice University
Luis Echegoyen, Clemson University



Industrial Electrochemistry & Electrochemical Engineering Division

Chair

John Weidner, University of South Carolina

Vice-Chair

Vijay Ramani, Illinois Institute of Technology

Secretary/Treasurer

Gerardine Botte, Ohio University

ECS Establishes SES Research Young Investigator Award of the FNCN Division



The **ECS FULLERENES, NANOTUBES, AND CARBON NANOSTRUCTURES (FNCN) DIVISION** has recently established a second award, the **SES RESEARCH YOUNG INVESTOR AWARD**. This award, to be presented for the first time in 2009, was created to encourage promising researchers to remain active in the fields of fullerenes, nanotubes, and carbon nanostructures.

Francis D'Souza, chair of the FNCN Division, said, "Establishing the second award to recognize outstanding persons in their early career is an important step to encourage the next generation of scientists to be active in the area of fullerenes, nanotubes, and carbon nanostructures, and involve them more in ECS sponsored activities. Both the Smalley Research and the SES Research Young Investigator Awards are expected to increase the visibility of the FNCN Division within and outside ECS."

The FNCN Division is comprised of an international body of scientists including those from the North America, Europe, and Asia. Therefore, these awards will have an international flavor to them. We also hope that these newly established awards will appeal more researchers to participate in the FNCN Division-sponsored symposia and make ECS the platform to discuss and disseminate their research findings. As Chair of the Division, I also take this opportunity to thank the donors for their generous help to setup the endowment, members of the FNCN community for their support, and the hardworking ECS staff to make these things possible."

SES Research was founded in the early years of fullerene research, in 1991, by two University of Houston graduates, Christopher Bures and Robert Wong, with the simple idea of supplying fullerenes to the world. Armed with the knowledge of making fullerenes, and the understanding that fullerenes will one day have an impact on the daily life of everyone, SES Research opened its doors to the worldwide fullerene research community. SES Research quickly became known as a premier commercial carbon fullerene supplier,

manufacturing and distributing Carbon 60, Carbon 70, nanotubes, and fullerene-related HPLC columns worldwide. The Houston, Texas based company currently supplied a complete list of fullerenes and carbon nanotubes to academic and government labs and commercial companies worldwide. The capability to design and manufacture prototype equipment has remained one of the core competencies of SES Research as it continues to use this competency to support the large petroleum industry in Houston.

When approached about funding an ECS award, Mr. Wong, owner of SES Research, said, "We would love to give back to the fullerene community and ECS, who have supported our company over the years. What a great opportunity to help the future of fullerene research, maybe one of these young researchers will give us the next life changing development."

Nominations and supporting documents for the SES Research Young Investigator Award should be sent to Prashant Kamat at kamat@hertz.rad.nd.edu. Materials are due September 1, 2008. For rules and eligibility visit: http://www.electrochem.org/awards/division/division_awards.htm#u.

Corporate Membership News

The number of companies supporting ECS and enjoying the benefits of corporate membership continues to grow with five new sponsors. Our new members include Johnson Matthey, AMEC, and Gamry Instruments at the Sponsoring level; and Ford Motor Company and Los Alamos National Laboratory at the Sustaining level. In addition to our new partners, five existing members have upgraded their membership to the Sponsoring level. These organizations include Coolohm, Inc., the Lawrence Berkeley National Laboratory, Matsushita Battery Industrial Co., Siltronic AG, and TIMCAL.

JOHNSON MATTHEY is a specialty chemicals company focused on its core skills in catalysts, precious metals, fine chemicals, and process technology. The group's principal activities are the manufacture of autocatalysts, heavy duty diesel catalysts and pollution control systems, catalysts and components for fuel cells, catalysts and technologies for chemical processes, fine chemicals, chemical catalysts and active pharmaceutical ingredients, and the marketing, refining, and fabrication of precious metals. Johnson Matthey has operations in over 30 countries

and employs around 7,800 people. Its products are sold across the world to a wide range of advanced technology industries.

AMEC (Advanced Micro-Fabrication Equipment Inc.) is an emerging Asia-based semiconductor equipment company with a portfolio of proprietary wafer fabrication solutions designed to advance technology, increase productivity, and reduce manufacturing costs for leading global semiconductor manufacturers. Strategically head-quartered in the hub of the semiconductor manufacturing industry, AMEC's proprietary etch and chemical vapor deposition (CVD) systems combine unique technology solutions with economic innovations for the 65/45-nm nodes and beyond. AMEC's global infrastructure will include R&D, manufacturing, business, and support operations in China, Japan, Korea, Singapore, Taiwan, and the U.S.

GAMRY INSTRUMENTS designs and manufactures potentiostats and electrochemical software for physical electrochemistry, electroanalytical chemistry, battery and fuel cell development, corrosion measurement, and sensor evaluation. Gamry potentiostats are built for high performance and excellent reliability. The software combines ease-of-use and versatility for a high-value package. A Gamry system can be configured to perform virtually any electrochemical technique... from cyclic voltammetry to EIS and repeating chronoamperometry, to electrochemical frequency modulation. Multiple-potentiostat systems are available for laboratories with high sample volume.

Gamry also provides expert advice on the application of electrochemical instruments in the laboratory. Every Gamrarian who consults with our users has laboratory experience with potentiostats and understands the importance of combining good instrumentation with good laboratory technique.

FORD MOTOR COMPANY, a global automotive industry leader based in Dearborn, Michigan, manufactures or distributes automobiles in 200 markets across six continents. With about 260,000 employees and about 100 plants worldwide, the company's core and affiliated automotive brands include Ford, Jaguar, Land Rover, Lincoln, Mercury, Volvo, and Mazda. Ford is committed to address the twin challenges of climate change and energy independence, as evidenced through its Greener Miles campaign, which strives to provide sustainable transportation for its customers that is affordable socially, environmentally, and economically. To this end, Ford is advancing with a variety of techno-

logies, some on the road today and others that show great promise for the future. These include hybrids, hydrogen fuel cells, hydrogen combustion engines, clean diesel, flexible fuel and biofuel vehicles, and energy efficient, advanced powertrains.

LOS ALAMOS NATIONAL LABORATORY is a premier national security research institution, whose primary responsibility is ensuring the safety, security, and reliability of the nation's nuclear deterrent. Lab R&D helps curb a variety of threats including proliferation of nuclear weapons, spread of deadly diseases, inadequate supplies of energy, and effects of climate change.

Corporate membership is a relationship of great mutual benefit to both member organizations and ECS. As a corporate member, your organization can receive: password-free online access to current and archived content in both of ECS's serial publications, the *Journal of The Electrochemical Society* and *Electrochemical and Solid-State Letters* for company facilities; complimentary individual memberships; free meeting registrations to our biannual events, which attract upwards of 3,500 scientists each year; subscriptions to ECS's two highly rated journals and the quarterly, *Interface*; recognition throughout ECS website publications; and much more.

FMC CORPORATION — *Benefactor Level Member since 1996* — FMC Corporation is a diversified chemical company serving agricultural, industrial, and consumer markets globally for more than a century with innovative solutions, applications, and quality products. The company employs over 5,000 people throughout the world. The company operates its businesses in three segments: agricultural products, specialty chemicals, and industrial chemicals. Feeding the world, protecting health, and providing the conveniences of life—that is the mission of FMC. With superior technology and strong partnerships with customers, FMC's people are finding solutions that are helping to change people's lives for the better.

GINER, INC. — *Sustaining Level Member since 1986* — Giner, Inc. is a small business founded by Dr. Jose Giner in 1973 with the objective of performing applied research and development (R&D) in electrochemistry and materials science. The work is directed toward developing innovative materials and components, subsystems, and complete systems. During 35 years of operation, Giner, Inc. has successfully conducted R&D programs leading to commercialization in the

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Corporate Member Spotlight

The Corporate Member Spotlight features several partner organizations that have made an investment in the future of the Society. In return for their support, ECS provides corporate members with an excellent package of benefits including complimentary ECS meeting registrations, free Active memberships for company employees, and, most importantly, online access to all current and archived Journal and Letters articles in the ECS Digital Library.

DURACELL — *Benefactor Level Member since 1957* — Part of the Procter & Gamble Company, Duracell is the world's leading manufacturer of high-performance alkaline batteries. Duracell also sells various other types of batteries including lithium and zinc air batteries, as well as rechargeable Nickel-Metal Hydride (NiMH) batteries and chargers. According to the company's website, three billion times a day, P&G brands touch the lives of people around the world. The company has one of the strongest portfolios of trusted, quality, and leadership brands. The P&G community consists of 138,000 employees working in over 80 countries worldwide.

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electrochemical energy conversion and biomedical/life science fields of use.

Giner Electrochemical Systems, LLC (GES) (established in 2000), is an alliance between Giner, Inc. and General Motors Corporation (GM). GES, a subsidiary of Giner, Inc. and a small business, is majority owned, controlled, and operated by Giner, Inc. A goal of this alliance is to develop and characterize advanced, low-cost and efficient materials, components, and processes for fuel cells and related devices for the transportation field of use.

Giner, Inc. has successfully commercialized its laboratory electrolyzer cell stack and electrochemical gas sensor technologies. Giner, Inc./GES has also successfully conducted R&D programs with the objectives of commercialization of high-pressure electrolyzers for space, sea, and commercial applications; electrochemical gas concentrators for enriching and/or controlling atmospheres containing oxygen, hydrogen, or nitrogen; and electrochemical capacitors for uninterruptible power, space, and biomedical applications.

COOLOHM INC. — *Sponsoring Level Member since 2006* — Coolohm Inc., a technical consulting company, specializes in electrochemical power sources (batteries, fuel cells, and capacitors) and their electronic applications. It provides technical support to engineers, corporate managers, and attorneys in: product design, testing, and qualification; employee and customer training; power systems integration; battery-system problem solving and root-cause analysis; and related intellectual property development or litigation.

The company President, Kathryn Bullock, is an ECS Fellow, Past-President, and Battery Division Award winner. She has a PhD in physical chemistry from Northwestern University and 30+ years of industrial experience in developing and applying batteries and capacitors to industrial, utility, telecommunications, automotive, medical, and consumer applications. She teaches an IEEE fuel-cell tutorial and also a Villanova University graduate engineering course in fuel cells, batteries, and capacitors.

If your organization is interested in supporting ECS and receiving the benefits of corporate membership, please contact Amir Zaman, Director of Membership and Development, at amir.zaman@electrochem.org or 609.737.1902, ext. 103. ■

Annual Society Luncheon



213TH ECS MEETING PHOENIX, ARIZONA

Tuesday, May 20, 2008

At 1215h, the Annual Society Luncheon and Business Meeting will be held in Phoenix East/West on the Second Floor of the Hyatt. The President, Secretary, and the Treasurer will give brief reports on the current state of the Society, and the Student Poster Award presentation will take place at this annual business luncheon. All members and meeting attendees are encouraged to participate in this meeting. Tickets are \$25.00 in advance and \$30.00 onsite.

ECS Co-sponsored Conferences for 2008/09

In addition to the regular ECS biannual meetings, ECS, its Divisions, and Sections cosponsor meetings and symposia of interest to the technical audience ECS serves. The following is a list of the cosponsored meetings for 2008/09.

- **XVIII Congreso de SIBAE**, March 10-14, 2008, Medellin, Columbia, servicios.udea.edu.co/Congreso2008
- **7th ECS International Semiconductor Technology Conference (ISTC 2008)**, March 15-17, 2008, Shanghai, China, www.ecsistc.org
- **6th Spring Meeting of the International Society of Electrochemistry**, March 17-19, 2008, Foz do Iguacu, Brazil, spring08.ise-online.org
- **13th Symposium on Polymers**, May 7-9, 2008, Winterthur, Delaware, USA, www.symposiumonpolymers.com
- **6th Asian Conference on Electrochemistry**, May 11-14, 2008, Taipei City, Taiwan, www.acec2008.org
- **8th International Workshop on Low Temperature Electronics**, June 22-25, 2008, Jena, Germany, www.wolte8.eu
- **3rd Peaks Conference on Electrochemical Processing for Microelectronics**, June 24-27, 2008, Whitefish, Montana, USA, www.semitool.com/Peaks/Plating/index.html
- **9th International Conference on Advanced Batteries and Accumulators**, June 29-July 3, 2008, Brno, Czech Republic, www.aba-brno.cz/aba2008
- **Faraday Discussion 140: Electrocatalysis: Theory and Experiment at the Interface**, July 7-9, 2008, Southampton, United Kingdom, www.rsc.org/FD140
- **12th International Meeting on Chemical Sensors**, July 13-16, 2008, Columbus, Ohio, USA, mse.osu.edu/imcs12 (Sponsored by ECS & ECS Sensor Division)
- **Gordon Conference on High Temperature Materials, Processes, and Diagnostics**, July 20-25, 2008, Waterville, Maine, USA, www.grc.org (Sponsored by ECS HTM Division)
- **Ultra High Temperature Ceramics: Materials for Extreme Environment Applications**, August 3-8, 2008, Lake Tahoe, California, USA, www.engconfintl.org/8ah.html (Sponsored by ECS HTM Division)
- **5th International Conference on Hot Wire Chemical Vapor Deposition**, August 20-24, 2008, Cambridge, Massachusetts, USA, web.mit.edu/hwcvd5
- **59th Annual Meeting of the International Society of Electrochemistry**, September 7-12, 2008, Seville, Spain, event08.ise-online.org
- **7th International Symposium on Electrochemical Micro & Nanosystem Technologies**, September 15-18, 2008, Ein Gedi, Israel
- **American Chemical Society Central Regional Meeting**, May 20-24, 2009, Cleveland, Ohio, USA, www.acs.org
- **69th Annual Meeting of the International Society of Electrochemistry**, August 16-21, 2009, Beijing, China, event09.ise-online.org

To learn more about what an ECS cosponsorship could do for your conference, including information on ECS's publishing of proceeding volumes for co-sponsored meetings, or to request an ECS cosponsorship of your technical event, please contact Amir Zaman, Director of Membership and Development, at amir.zaman@electrochem.org or 609.737.1902, ext. 103.

2008/09