

ECS Society Awards



The **EDWARD GOODRICH ACHESON AWARD** was established in 1928 for distinguished contributions to the advancement of any of the objects, purposes, or activities of The Electrochemical Society, and consists of a gold medal, wall plaque, and a prize of \$10,000. 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 Charles L. Hussey, University of Mississippi-Department of Chem./Biochem., P.O. Box 1848, University, MS 38677-1848, USA; tel. 662.915.7301, e-mail: chclh@chem1.olemiss.edu. Materials are due by **March 1, 2006**.



The **GORDON E. MOORE AWARD FOR SOLID STATE SCIENCE AND TECHNOLOGY** (formerly the Solid State Science and Technology Award) was established in 1971 for distinguished contributions to the field of solid-state science, and consists of a silver medal, wall plaque, and prize of \$7,500. The next award will be presented at the ECS spring meeting in Chicago, Illinois, May 6-11, 2007.

Nominations and supporting documents should be sent to Hisham Z. Massoud, Duke University, PO Box 90291, Electrical Computer Eng, Durham, NC 27708-0291, USA; tel. 919.660.5257, e-mail: massoud@ee.duke.edu. Materials are due by **May 1, 2006**.

FELLOWS OF THE ELECTROCHEMICAL SOCIETY were established in 1989 for individual contributions and leadership in the achievement of science and technology in the area of electrochemistry and solid-state sciences and current active participation in the affairs of The Electrochemical Society, and consists of a scroll, lapel pin, and announcement in a Society publication. The next Fellows will be presented at the ECS fall meeting in Cancun, Mexico, October 29-November 3, 2006.

Nominations and supporting documents should be sent to Steven J. Visco, Lawrence Berkeley National Laboratory, MS 62-203, 1 Cyclotron Rd, Berkeley, CA 94720-0001, USA; tel. 510.486.5821, e-mail: sjvisco@lbl.gov. Materials are due by **January 15, 2006**.

The **CHARLES W. TOBIAS YOUNG INVESTIGATOR AWARD** was established in 2003 to recognize outstanding scientific and/or engineering work in fundamental or applied electrochemistry or solid-state science and technology by a young scientist or engineer, and consists of a certificate, a prize of \$5,000, ECS Life Membership, 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 Jan B. Talbot, University of California, San Diego, Chemical Engineering Program, Rm 379, 9500 Gilman Dr., MS 0411, La Jolla, CA 92093-0411, USA; tel. 858.534.3176, e-mail: jtalbot@ucsd.edu. Materials are due by **January 15, 2006**.

The **ORONZIO DE NORA INDUSTRIAL ELECTROCHEMISTRY FELLOWSHIP** of The Electrochemical Society was established in 2003 to assist a postdoctoral scientist or engineer in the research of the field of industrial electrochemistry, and consists of a \$25,000 scholarship for one year, twice renewable based on successful research progress as judged by the award's committee. The next award will be presented on April 1, 2006.

Nominations and supporting documents should be sent to Emory Sayre DeCastro, De Nora North America, E-Tek Division, 39 Veronica Ave, Somerset, NJ 08873, USA; tel. 732.545.5100, ext. 114, e-mail: emory.decastro.etek@denora.com. Materials are due by **January 1, 2006**.

www.electrochem.org

Call for
Nominations

For details on each award, including a list of requirements for award nominees, and in some cases, a downloadable nomination form, please go to the ECS website (www.electrochem.org) and click on the "Awards" link in the upper right-hand corner. This will take you to a general page that will then lead to the individual awards. The awards are grouped in one of four categories: Society Awards, ECS Division Awards, Student Awards, and ECS Section Awards. Click on one of these sub-links to find the individual award. Please see each for information about where nomination materials should be sent; or you may contact the ECS headquarters office by using the contact information on the awards web page. For student awards, please see the Student News Section in this issue.

2004 Norman Hackerman Young Author Awards

The Society is pleased to announce the recipients of the 2004 Norman Hackerman Young Author Awards. The awards are given annually for the two best papers published in the Journal by authors under 31 years of age. The awards were established in 1928 and re-named for Dr. Norman Hackerman, former Editor of the Journal.



ROHAN AKOLKAR received the award for his paper "A Time-Dependent Transport-Kinetics Model for Additive Interactions in Copper Interconnect Metallization," *J. Electrochem. Soc.* **151**, C702 (2004).

Akolkar received PhD in chemical engineering from Case Western Reserve University in 2004. For his doctoral research, he worked with Uziel Landau on characterizing the synergistic interactions of plating additives during the metallization of semiconductor interconnects. During the summers, he worked at the General Motors R&D Center, Warren MI, on analyzing the current distribution during the anodic oxidation of aluminum. His research interests include experimental characterization and mathematical modeling of electrochemical systems, including electrodeposition, and anodization. Currently, he is working as a process engineer in components research at Intel Corporation, where his work focuses on developing advanced electrochemical technologies in semiconductor processing.



YI-KOAN HONG received the award for his paper "The Effect of Additives in Post-Cu CMP Cleaning on Particle Adhesion and Removal," *J. Electrochem. Soc.* **151**, G756 (2004).

Hong is a PhD candidate at Hanyang University, Korea. He received his MS from Hanyang University in 2002 and his BS in metallurgy engineering from Dong-a University, Korea in 2000. His major areas of interest include chemical mechanical polishing (CMP), cleaning/post Cu CMP cleaning processes for semiconductors, particle/metallic removal and adhesion, and chemicals in semiconductor and electronic materials fabrication. His referred journal articles include papers in the *Japanese Journal of Applied Physics*, *Materials Science Forum*, *the Journal of The Electrochemical Society*, and *the KSTLE International Journal*.

ECS Division Awards



The **RESEARCH AWARD OF THE BATTERY DIVISION** was established in 1958 to recognize outstanding contributions to the science and technology of primary and secondary cells and batteries and fuel cells. The award consists of a scroll, a prize of \$1,000, and membership in the Battery Division for as long as the winner is a Society member. 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 Ralph J. Brodd, Broddarp of Nevada, 2161 Fountain Springs Drive, Henderson, NV 89074-1574, USA; tel. 702.897.3027, e-mail dbrodd@broddarp.com. Materials are due by **March 15, 2006**.



The **TECHNOLOGY AWARD OF THE BATTERY DIVISION** was established in 1993 to encourage the development of battery and fuel cell technology. The award consists of a scroll, a prize of \$1,000, and membership in the Battery Division as long as the winner is a Society member. 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 Bor Yann Liaw, University of Hawaii, Natural Energy Institute, SOEST, 1680 East West Road, Post 109, Honolulu, HI 96822, USA; tel. 808.956.2339, e-mail bljaw@hawaii.edu. Materials are due by **March 15, 2006**.



The **H. H. UHLIG AWARD OF THE CORROSION DIVISION** was established in 1972 to recognize excellence in corrosion

research and outstanding technical contributions to the field of corrosion science, and consists of a scroll, a prize of \$1,500, and travel assistance to the meeting in which the award is presented (if required). 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 Gerald Frankel, Ohio State University, 477 Watts Hall, 2041 N. College Road, Columbus, OH, 43210-1124, USA; tel. 614.688.4128, e-mail: frankel10@osu.edu. Materials are due by **December 15, 2005**.



The **HIGH TEMPERATURE MATERIALS OUTSTANDING ACHIEVEMENT AWARD**

was established in 1984 to recognize excellence in high temperature materials research and outstanding technical contributions to the field of high temperature materials science, and consists of a scroll, complimentary meeting registration, a prize of \$1,000, and travel assistance up to \$1,000 for the meeting in which the award is presented (if required). The next award will be presented at the ECS fall meeting in Washington, DC, October 7-12, 2007.

Nominations and supporting documents should be sent to Enrico Traversa, Univ di Roma, "Tor Vergata," via della Ricerca Scientifica, Roma, I-00133, Italy; tel. 39672594492, e-mail: traversa@uniroma2.it. Materials are due by **January 1, 2006**.



The **CENTENNIAL OUTSTANDING ACHIEVEMENT AWARD OF THE LUMINESCENCE AND DISPLAY MATERIALS**

DIVISION was established in 2002 to encourage excellence in luminescence and display materials research and outstanding contributions to the field of luminescence and display materials

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2005 NET Award

The 2005 NET Award of the ECS IE&EE Division was presented during the ECS meeting this past May in Québec City, Canada. Representatives of De Nora Tecnologia Elettrochimiche, E-Tek, and Bayer MaterialScience received the award, which was established in 1998 to recognize significant advances in industrial electrochemistry. Its motivation is to promote high-quality, applied electrochemical research and development. The presentation, describing the successful commercial venture, provides an educational experience for all electrochemists.

The new technology noted by the award is HCl electrolysis using oxygen depolarized cathodes (ODC). This is a process for the electrolysis

of hydrochloric acid based on oxygen-consuming cathodes. Oxygen is fed to the cathode, equipped with a gas diffusion electrode (GDE), forming water instead of hydrogen, and leading to a reduction of voltage by about 35%. Moreover, the new technology is distinguished from traditional diaphragm and graphite cells, in that, for the first time, it uses a metallic electrolyzer with ion exchange membrane for the electrolysis of HCl.

The main impact of the new process is the conversion of the HCl aqueous solution back to chlorine. That will allow designing and operating processes that use chlorine as one of the raw materials and generate HCl as a byproduct, without many of the former restraints given

by the market prices of chlorine and costs for disposal of excess acid. In addition, the ODC electrolysis of HCl may be seen as the forerunner of a new family of electrochemical processes all based on the GDE technology and all characterized by lower energy consumption with respect to conventional plants.

The achievement is the result of work developed by De Nora Tecnologia Elettrochimiche S.r.l. and De Nora Elettrodi Network (especially De Nora North America Inc./E-Tek Division, De Nora Deutschland GmbH), in cooperation with Uhde GmbH (a joint venture with Uhdenera Technologies S.p.a.), and in cooperation with Bayer Material Science AG. ■

THE 2005 IE&EE NET AWARD was presented at the ECS spring meeting this past May. Attending the ceremony were (from left to right): **JOHN WEIDNER** (University of South Carolina, IE&EE Secretary/Treasurer), **FULVIO FEDERICO** (De Nora), **HANS-DIETER PINTER** (Bayer MaterialScience), **FRIITZ GESTERMANN** (Bayer MaterialScience), **EMORY DE CASTRO** (E-Tek), and **DENNIE MAH** (DuPont, IE&EE Vice-Chair).



ECS Division Awards

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science and consists of a scroll and a prize of \$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 Alok Srivastava, General Electric, 1 Research Cir., Niskayuna, NY 12309-1027, USA; tel. 518.387.7535, e-mail: srivastava@crd.ge.com. Materials are due by **January 1, 2006**.



The **OUTSTANDING ACHIEVEMENT AWARD OF THE SENSOR DIVISION**

was established in 1989 to recognize outstanding achievement in the science and/or technology of sensors and to

encourage excellence of work in the field, and consists of a scroll and a prize of a \$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 Zoraida P. Aguilar, Vegrandis, LLC, 535 W. Research Center Blvd., Fayetteville, AR 72701, USA; tel. 479.575.3289, e-mail: zoraida.aguilar@vegrandis.com. Materials are due by **January 1, 2006**.

Section Awards

The **ALLESANDRO VOLTA MEDAL OF THE EUROPEAN SECTION** was established in 1998 to recognize excellence in electrochemistry and solid-state science and technology research, and consists of a silver medal and a check for \$500. 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 Pawel J. Kulesza, Department of Chemistry, University of Warsaw, Pasteura 1, PL-02-093 Warsaw, Poland, tel: 48.22 8220211, ext. 289 (office) or 277 (lab), fax: 48.22 8225996, e-mail: pkulesza@alfa.chem.uw.edu.pl. Materials are due by **March 15, 2006**.