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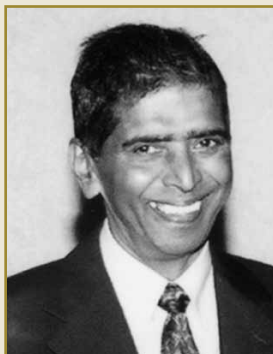


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Supramaniam Srinivasan Young Investigator Award of the Energy Technology Division Call for Contributions



Supramaniam Srinivasan
1932-2004

In a continuing tradition of fostering excellence and leadership, the Energy Technology Division of ECS has established a new award for young investigators, named after the late Dr. Supramaniam Srinivasan. The Supramaniam Srinivasan Young Investigator Award of the Energy Technology Division complements existing ECS awards, which recognize outstanding technical achievements in electrochemistry and solid-state science and technology.

Dr. Srinivasan had a long and successful fuel cell and related technologies research and development career spanning several decades and prestigious institutions including Brookhaven National Laboratory, Los Alamos National Laboratory, Texas A&M University, and Princeton University. He was a tireless advocate for innovation in electrochemical technology and its underlying basic science. He authored or co-authored two fuel cell monographs (*Fuel Cells: Their Electrochemistry*, 1969 and *Fuel Cells: From Fundamentals to Applications*, 2006). His love for ECS was especially deep. He co-founded the Energy Technology Division, filled the role of Group/Divisional Editor for the *Journal of The Electrochemical Society* from 1980 to 1991, received the Energy Technology Division Research Award in 1996, and became an ECS Fellow in 2001.

A worldwide energy crisis is imminent and will affect all of society either in direct or indirect ways. Fuel cells and hydrogen constitute important parts of the solution to this issue. It is thus

fitting that one of the early fuel cell and water electrolysis research and development pioneers and advocates was chosen for the name of this award to continue his legacy.

The goal of this call for donations is \$20,000, sufficient to establish a fund for a yearly \$1,000 award. Any donation will be accepted. It is anticipated that the goal will be achieved before the ECS spring 2011 meeting (May 1-6, 2011) to ensure that an award can be made for 2011. Contributions should be made payable to The Electrochemical Society and sent to: 65 South Main Street, Pennington, NJ 08534, USA; tel: 1.609.737.1902. Include the name you wish to have recognized, and complete mailing address, telephone number, and e-mail. Be sure to indicate that the donation is for the Supramaniam Srinivasan Young Investigator Award.

Please make your contribution to energy science through your tax deductible donation to the Supramaniam Srinivasan Young Investigator Award.

Corporate Member News



Spotlight on Bitrode

From its beginnings in 1957, **BITRODE** has consistently produced specialized battery formation and lab testing equipment renowned for standard-setting excellence in engineering, accuracy, reliability, and consistency. Bitrode's product line has expanded from its formation equipment and laboratory test instruments to include state-of-the-art software tools (circuit control and data acquisition), battery simulation and manufacturing automation tools, and lab accessories (water baths, battery racks) appropriate to all battery applications and chemistries.

Their clients—users across the battery, automotive, and aircraft industries—have come to value Bitrode's trademark turnkey project management, ongoing service, and commitment to technical innovation.

Bitrode also offers an extensive range of engineering services in both hardware and software to any meet any requirement in any application. The company enjoys a long history of partnership with other best-in-class suppliers on large turn-key projects. Their collaboration with A&D Technologies, for example, has resulted in the Bitrode equipment and CSZ chambers controlled by the A&D iTest system in GM's Advanced Battery Lab laboratory in Warren, Michigan, and in Magna's eCar program in Rochester Hills, Michigan.

One of the first in the industry to anticipate the ascendancy of the hybrid and electric vehicle market, Bitrode

launched development and production of their first HEV high-power, high-speed equipment and test systems well before automakers stepped up investment in advanced technology vehicles early in the last decade.

Bitrode's test equipment—known as the "FTF" line of machines—performs advanced applications requiring fast switching speeds, extensive data collection, and CAN interface for cell, module, and pack level testing to assure that EV and HEV batteries can pass rigorous standard tests (FUDS, ECE-15, DST). The unique regenerative capabilities of the units can return power back to the power grid, thus virtually eliminating heat dissipation, and recycling electricity. Since the release of their first machine in 2003, Bitrode has led the industry in complete turn-key solutions for HEV/EV cell, module, and pack testing.

New Division Officers

New officers for the 2010-2012 term have been elected for the following Divisions.



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Nancy Missert, Sandia National Laboratories

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Advisor

David Lockwood, National Research Council - Canada



Sensor Division

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Michael Carter

Secretary

Bryan Chin, Auburn University

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Nianqiang (Nick) Wu, West Virginia University

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Venkat Bhethanabotla, University of South Florida

Cynthia Bruckner-Lea, Pacific Northwest Laboratories

William Buttner, National Renewable Energy Laboratory

Ying-Lan Chang, Nanomix

Jay Grate, Pacific Northwest Laboratories

Peter Hesketh, Georgia Tech

A. Robert Hillman, University of Leicester

Zhiyu Hu, Oak Ridge National Laboratory

James Hunter, Honeywell International

Tatsumi Ishihara, Kyushu University

Sangmin Jeon, Postech

Mira Josowicz, Georgia Tech

Girish Kale, University of Leeds

William Kerr, EEI

Ajit Khosla, Simon Fraser University

Christine Kranz, University of Ulm

Vadim Lvovich, Cleveland Clinic Foundation

Norio Miura, Kyushu University

Rangachary Mukundan, Los Alamos National Laboratory

Christian Mutale, Alcoa Technical Center

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Joseph Stetter, KWJ Engineering Incorporated

Massood Tabib-Azar, Case Western Reserve University

Thomas Thundat, Oak Ridge National Lab

Petr Vanysek, Northern Illinois University

Benjamin Ward, Makel Engineering Inc.

Advisor

David Shifler, Office of Naval Research



Corrosion Division

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Douglas Hansen, University of Dayton Research Institute

Vice-Chair

Shinji Fujimoto, Osaka University

Secretary/Treasurer

R. Scott Lillard, Los Alamos National Laboratory

Past Chair

Alison Davenport, University of Birmingham

ECS Cosponsored Conferences for 2011

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 2011. Please visit the ECS website for a list of all co-sponsored meetings.

- **Florida Solar Energy Center (FSEC) 5th Annual Fuel Cell Workshop**, February 6-10, 2011, Cocoa Beach, Florida
- **China Semiconductor Technology International Conference 2011 (CSTIC 2011)**, March 13-14, 2011, Shanghai, China
- **Workshop on Novel Sampling and Sensing for Improving Food Safety**, March 24-25, 2011, Atlanta, Georgia
- **9th Spring Meeting of the International Society of Electrochemistry**, May 8-11, 2011, Turku-Åbo, Finland
- **62nd Annual Meeting of the International Society of Electrochemistry**, September 11-16, 2011, Niigata, Japan
- **4th International Conference on Electrophoretic Deposition: Fundamentals and Applications (EPD 2011)**, October 2-7, 2011, Puerto Vallarta, Mexico (Sponsored by ECS Electrodeposition Division)
- **Fray International Symposium on Metals and Materials Processing in a Clean Environment**, November 27-December 1, 2011, Cancun, Mexico

To learn more about what an ECS co-sponsorship could do for your conference, including information on publishing proceeding volumes for co-sponsored meetings, or to request an ECS co-sponsorship of your technical event, please contact ecs@electrochem.org.



websites of note

by Zoltan Nagy

Experiments in Electrochemistry

The "Fun Science Gallery" presents "fun, simple, low cost science experiments for amateur scientists and for motivating children to engage in science" for quite a variety of disciplines including electrochemistry. "Building a lemon battery or even a tomato battery, measuring the conductivity of water, performing galvanic deposits, are only a few of the fun and educational experiments described." Volta's pile, the Daniell cell, and concentration cells are also described and instructions given how to build them.

- Giorgio Carboni
- http://www.funsci.com/fun3_en/electro/electro.htm

Technical Notes on Electrochemical Techniques

A number of detailed Technical Bulletins, Technical Notes, and Applications Notes, mainly about electrochemical impedance spectroscopy (EIS) available in PDF format. To be used for basic research, applications for fuel cells, batteries, corrosion, bioimpedance, civil engineering, and solid state materials. Basic mathematical theory, instrumentation, and applications. Also potentiodynamic polarization scan technique and cell design. Includes also a searchable collection of 140 published papers that refer to experiments carried out in these areas.

- Solartron Analytical
- <http://www.solartronanalytical.com/Pages/ApplicationTechnicalNotes.htm>

Electrochemistry for Corrosion

Very detailed description of electrochemical aspects of corrosion. Electrochemical theory of corrosion, basics of electrochemical instrumentation, cell designs, and electrochemical measurement techniques for corrosion measurements. Describes steady-state and potential sweep methods, transient methods, AC impedance measurements (electrochemical impedance spectroscopy), and electrochemical noise methods.

- R. A. Cottis and A. Llewellyn, University of Manchester
- http://corrosiontest.its.manchester.ac.uk/lecturenotes/Echem/index_main.htm

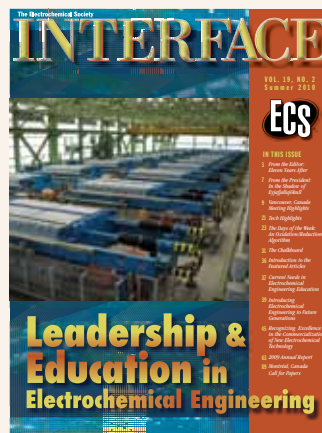
About the Author

ZOLTAN NAGY is a semi-retired electrochemist. After 15 years in a variety of electrochemical industrial research, he spent 30 years at Argonne National Laboratory carrying out research on electrode kinetics and surface electrochemistry. Presently he is at the Chemistry Department of the University of North Carolina at Chapel Hill. He welcomes suggestions for entries; send them to nagy@email.unc.edu.

In the **NEXT** issue of **INTERFACE**

- **CARBON-BASED NANOMATERIALS** in general and graphene in particular have attracted much attention in recent months. The spring 2011 issue will feature a series of articles on graphene-related R&D.
- **MONTREAL MEETING SPECIAL SECTION...** The spring issue will feature highlights from the upcoming ECS meeting in Montreal, Canada, including photos and biographies of all major award winners, special meeting events, and hotel and travel information.
- **TECH HIGHLIGHTS** will continue to provide readers with free access to some of the most interesting papers published in the ECS journals.
- Don't miss the next edition of **WEBSITES OF NOTE** which gives readers a look at some little-known, but useful sites.

Erratum



In the summer 2010 issue of *Interface*, on page 21, the Tech Highlights column contained an error. In the first highlight ("A Solid-State, Rechargeable, Long Cycle Life Lithium-Air Battery," *J. Electrochem. Soc.*, **157**, A50), "LiO₂" was used throughout the highlight, instead of "Li-O₂".