AVS Announces Its Major Award Winners of 2019

New York, October 29, 2019 — The AVS has selected its major award winners for 2019. The AVS established an annual awards program to encourage excellence in research and innovation in technical areas of interest to the AVS. Listed below are the major award winners:

**Medard W. Welch Award**— Scott A. Chambers, Pacific Northwest National Laboratory, “For pioneering contributions to understanding the origin and influence of heterogeneities, defects, and disorder in complex oxide epitaxial films and heterostructures.” The award recognizes and encourages outstanding research in the fields of interest to AVS. The award consists of a cash award, a medal, a plaque, and an honorary lectureship at a regular session of the International Symposium.

**John A. Thornton Memorial Award and Lecture**— Gottlieb Oehrlein, University of Maryland, “For groundbreaking contributions to the fundamental understanding of plasma-surface interactions enabling micro- and nanofabrication, using plasma-assisted techniques, including plasma based atomic layer etching.” This award recognizes outstanding research or technological innovation in the areas of interest to AVS with emphasis on the fields of thin films, plasma processing, and related topics. The award is conferred biennially as a suitable candidate may be identified. The award consists of a cash award, a plaque, and an honorary lectureship at a regular session of the International Symposium.

**Peter Mark Memorial Award**— Stephanie Law, University of Delaware, “For the epitaxy of novel materials and heterostructures for optics in the far-infrared and terahertz spectral ranges.” This award is presented to a young scientist or engineer (35 years of age or under) for outstanding theoretical or experimental work, at least some of which must have been published in an AVS journal. The award consists of a cash award, a plaque, and an honorary lectureship at a regular session of the International Symposium.

A complete list of the Fellows as well as the 2019 graduate student winners is attached. Nominations for the 2020 awards are currently being solicited. For more information, please contact Angela Klink, AVS, 212-248-0200, fax 212-248-0245, e-mail angela@avs.org.
Additional Awards

2019 AVS Fellows

AVS Fellows are members who have made outstanding contributions in areas of interest to AVS.

John Conley, Oregon State University, “For outstanding contributions and leadership in semiconductor process technology, especially atomic layer deposition, and to the development of dielectrics and the understanding of reliability problems field-effect-transistors and metal/insulator/metal MIM devices”

Arutun Ehiasarian, Sheffield-Hallam University, United Kingdom, “For seminal contributions to the understanding of HiPIMS discharges and the development and implementation of a family of advanced protective coatings based on this technology”

James Fedchak, NIST, “For pioneering work in the science and metrology of extreme high vacuum, and support of the stakeholder and scientific community”

Armin Gölzhäuser, Universität Bielefeld, Germany, For the discovery, development and applications of carbon nanomembranes

Erwin Kessels Eindhoven University of Technology, The Netherlands, “For innovations in the field of atomic scale processing, most prominently in the area of atomic layer deposition, and for bringing these innovations from lab to fab”

Ludvik Martinu, École Polytechnique de Montreal, Canada, “For leadership and significant scientific and educational contributions to the development of the holistic surface engineering approach for optical, smart and multifunctional coatings”

Anthony Muscat, University of Arizona, “For contributions to gas phase cleaning and passivation of semiconductor surfaces”

Ivan Oleynik, University of South Florida, “For outstanding contributions toward fundamental understanding of spin-dependent tunneling, molecular electronics, graphene and diamond CVD growth and data-driven discovery of novel energy materials”

Axel Rosenhahn, Ruhr-University Bochum, Germany, “For the development of quantitative methods to determine the interaction and adhesion of cells and microorganisms to functional coatings”

Darrell Schlom, Cornell University, “For pioneering the MBE growth of complex oxides, creating oxides with unparalleled properties, and for materials science contributions to the integration of high dielectric constant oxides in semiconductor devices”

Erik B. Svedberg, The National Academies: National Materials and Manufacturing Board, “For notable contributions to thin film materials research and for outstanding policy development in materials and manufacturing”

Miguel Jose Yacaman, University of Texas at San Antonio, “For contributions to the characterization and understanding of the shape and functionality of nanoparticles through transmission electron microscopy and his work in developing surface science in Latin America”
AVS Graduate Student Awards

2019 Top-Level Student Finalists

There are five (5) top-level named Graduate Student Awards and three (3) Graduate Research Awards, described below. The recipients of these awards are determined after a general competition with all the graduate research applicants and a presentation to the Awards Committee at the International Symposium.

Russell and Sigurd Varian Award

The Russell and Sigurd Varian Award was established in 1982 to commemorate the pioneering work of Russell and Sigurd Varian. It is presented to recognize and encourage excellence in graduate studies in the sciences and technologies of interest to AVS. The award is supported by Agilent Technologies Vacuum Products Division. It consists of a cash award, a certificate, and reimbursed travel support to attend the International Symposium.

- Dipna Patel, Tufts University

Nellie Yeoh Whetten Award

The Nellie Yeoh Whetten Award was established in 1989, in the spirit of Nellie Yeoh Whetten, to recognize and encourage excellence by women in graduate studies in the sciences and technologies of interest to AVS. A fund to support the award was established by Timothy J. Whetten, friends and family of Nellie Yeoh Whetten, and AVS. The award consists of a cash award, a certificate, and reimbursed travel support to attend the International Symposium.

- Rebecca Thompson, University of Chicago

Dorothy M. and Earl S. Hoffman Award

The Dorothy M. and Earl S. Hoffman Award was established in 2002 to recognize and encourage excellence in graduate studies in the sciences and technologies of interest to AVS. It is funded by a bequest from Dorothy M. Hoffman, who was president of AVS in 1974 and held other positions of responsibility in the Society. The award consists of a cash award, a certificate, and reimbursed travel support to attend the International Symposium.

- Jonathan Meyers, University of North Carolina Chapel Hill

Dorothy M. and Earl S. Hoffman Scholarships

The Dorothy M. and Earl S. Hoffman Scholarships were established in 2002 to recognize and encourage excellence in graduate studies in the sciences and technologies of interest to AVS. They are funded by a bequest from Dorothy M. Hoffman. The scholarships consist of a cash award, a certificate, and reimbursed travel support to attend the International Symposium.

- Ross Edel, University of Chicago
- Koichi Tanaka, UCLA

2019 Graduate Research Awards

The Graduate Research Awards were established in 1984 to recognize and encourage excellence in graduate studies in the sciences and technologies of interest to AVS. Each consists of a cash award, a certificate, and reimbursed travel support to attend the International Symposium.

- Michael Dzara, Colorado School of Mines
- Thilini Ekanayaka, University of Nebraska Lincoln
- Yongtao Liu, University of Tennessee Knoxville

Marketing Communications Contact: Della Miller, AVS West, 110 Yellowstone Dr., Suite 120 Chico CA 95973, Phone: 530-896-0477, Fax 530-896-0487, E-mail della@avs.org