AMERICAN VACUUM SOCIETY IS SET TO MEET IN CHICAGO

The American Vacuum Society's 39th national symposium will run from Monday, 9 November, to Friday, 13 November, in Chicago at the Hyatt Regency Hotel.

The technical program this year will have 80 oral sessions and 12 poster sessions. A total of 965 papers will be presented, almost 100 more than at last year's symposium. This year's meeting also features three topical conferences on new areas of research: environmental interfaces, silicon-based heterostructures and energetic condensation.

Besides the technical sessions, this year's meeting will feature an awards assembly and reception, an exhibition of vacuum and deposition equipment, a job-placement center and 42 short courses on a variety of subjects relevant to vacuum science and technology.

Karl A. Erb, who is the associate director for physical sciences and engineering in the White House Office of Science and Technology Policy, will deliver the plenary address on Monday afternoon at 12:45 pm. The title of his talk will be "The Private Sector and the Evolution of the Federal Advanced Materials and Processing Program."

Technical sessions organized by the eight divisions of AVS will begin on Monday morning. The surface science division will have 21 sessions, while the applied surface science, electronic materials and processing, nanometer-scale science and technology, and plasma science and technology divisions will have ten sessions each. The thin films division will have eight sessions, the vacuum technology division six and the vacuum metallurgy division four.

Annual AVS awards

The AVS awards assembly begins at 6:45 pm on Wednesday, 11 November, at the Hyatt Regency. Once the awards have been presented, an awards reception will follow.

Ernst Bauer of the Technical University of Clausthal, Germany, will receive the Medard W. Welch Award for "his contribution to the fundamental understanding of thin film nucleation and growth and for his invention, development and use of multiple surface characterization techniques to study those thin films." Bauer's early studies of thin film growth used such probes as electron microscopy, ultrahigh-vacuum reflection electron diffraction, low-energy electron diffraction and Auger electron spectroscopy. In 1961 he invented low-energy electron microscopy, which now can be used to observe surface structures in materials at temperatures up to 1500 K. Bauer has also studied the structure and energetics of adsorbed layers, as well as ultrathin metal films and two-dimensional phase transitions.

Bauer earned his PhD in physics from Munich University in 1955. After three years of work there, he moved to the Michelson Laboratory in China Lake, California. He became head of the crystal physics branch at the lab before joining the Technical University in 1969 as a professor and the director of the Physics Institute there. In 1991 he received an additional appointment at Arizona State University, Tempe, as Distinguished Research Professor.

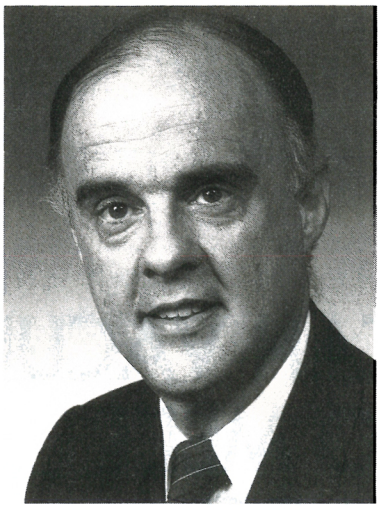
The John A. Thornton Memorial Award will go to Thomas R. Anthony of the General Electric Research and Development Center, in Schenectady, New York. His citation recognizes his "pioneering contributions to the fundamental understanding, development and effective applications of CVD diamond technology." In 1985 Anthony was one of the first in the US to develop a low-pressure chemical vapor deposition process for growing diamond films at high deposition rates. His work has led to better understanding of the nucleation process and the role of hydrogen in deposition. Recently he discovered CVD process conditions that allow formation of transparent sheets of diamond.

Anthony got his PhD in applied physics from Harvard University in 1967. He then became a staff member at the GE Research and Development Center, where he is currently a research physicist.

Paolo Della Porta, managing director of the SAES Getters Group, has been selected as this year's Albert Nerken Award winner for "his contributions over several decades to the invention and world-wide distribution of a series of getters with extensive applications, ranging from radio tubes to the largest accelerators on Earth." Della Porta developed a variety of getters, substances that remove trace gases, as vacuum pumps for use in sealed devices. In 1952 Della Porta invented a "ring getter" with a U-shaped cross-section, which helped solve mass production problems for the getter device and electron tubes. In the early 1960s he developed a nonevaporable getter using a Zr–Al alloy instead of Ba alloys.

Della Porta received his engineering PhD in 1949 from Milan Polytechnic, in Italy. He held a series of

Ernst Bauer



Thomas R. Anthony

Paolo Della Porta

Russell D. Young

positions with SAES Getters Group, an affiliation of 15 companies, before becoming vice president and managing director in 1954. He is currently president of most of the affiliates.

Russell D. Young, retired from R. D. Young Consultants Inc, will receive the Gaede-Langmuir Award for "his invention of the Topografiner, an instrument that led to the development of the scanning tunneling microscope." In 1966 Young proposed a method to obtain high-resolution topographic maps of surfaces by holding ultrasharp points close to a conducting surface, passing a current between the point and the surface, and raster-scanning the point along the surface. By 1972 Young and his colleagues produced the first such map using the Topografiner device. Their other results included the first measurement of the metal–vacuum–metal tunneling characteristic.

After earning his physics PhD from Pennsylvania State University in 1959, Young spent two years there as a postdoc. In 1961 he joined the research staff of the National Bureau of Standards, where he later held a series of research management positions through the 1970s. In 1981 he formed R. D. Young Consultants. He retired in 1991.

The *Journal of Vacuum Science and Technology* Shop Note Award will go to Dong-Ryul Jeon and Roy F. Willis for their contribution to the paper "Inchworm Controller for Fine Approach in Scanning Tunneling Microscope" (*J. Vac. Sci. Technol. A* **9**, 2418, 1991). Willis is a physics professor at Penn State. Jeon, who was a graduate student under Willis, is now at Myong Ji University in Seoul, Korea.

Several graduate students will receive AVS student awards. The Russell and Sigurd Varian Fellowship finalists are Paul Benning of the University of Minnesota, Monica Katiyar of the University of Illinois, Urbana-Champaign, and Rex Ramsier of the University of Pittsburgh. Hope Michelson of the IBM Almaden Research Center, in San Jose, California, will receive the Nellie Yeoh Whetten Award.

AVS Student Prize winners are Colombo Bolognesi of the University of California, Santa Barbara, Chonglin Chen of Penn State, Anthony Diaz of Western Washington University, Heather Inglefield of MIT, Dongqi Li of Syracuse University, Christopher Luse of the Georgia Institute of Technology, Christopher Snyder of the University of Michigan, Kanishka Tankala of Penn State and Laura Tedder of the University of California, San Diego.

Exhibit and other events

The American Institute of Physics will manage an equipment exhibit for AVS at the Hyatt Regency. Hours are 11 am to 6 pm on Tuesday, 10 am to 5 pm on Wednesday and 9 am to 2 pm on Thursday. Over 150 companies will present vacuum and deposition equipment, vacuum system components, analysis systems and vacuum-related services. This year attendees should have more time to see the show because no plenary talks will be given at lunchtime on exhibit days. Also, no technical sessions have been scheduled during a three-hour block on Wednesday. On Tuesday from 4 pm to 6 pm a new products session will be held in the exhibit hall.

AVS will run 42 short courses, including five new ones, for both specific training and general overviews of topics of interest to meeting attendees. All courses will be held at the hotel. They are scheduled at various times throughout the week, concurrent with the symposium. There are 13 courses under the heading of vacuum technology, nine under surface analysis and materials characterization and 20 under materials, thin films and coatings: processing and characterization.

AIP will run a job-placement center during the AVS symposium. The center will also be located at the Hyatt Regency and will be open Monday through Thursday from 8:30 am to 5 pm. ■