

Carter

Mead



Craford

Dupuis



Holonyak

Cree Inc in Durham, North Carolina. Carver Mead received a medal for his "pioneering contributions to the microelectronics field that include spearheading the development of tools and techniques for modern integrated-circuit design, laying the foundation for fabless semiconductor companies, catalyzing the electronicdesign automation field, training generations of engineers that have made the United States the world leader in microelectronics technology, and founding more than 20 companies." He is the Gordon and Betty Moore Professor of Engineering and Applied Science Emeritus at Caltech.

A team medal went to M. George Craford, Russell D. Dupuis, and Nick Holonyak Jr for their "contributions to the development and commercialization of light-emitting diode (LED) technology, with applications to digital displays, consumer electronics, automotive lighting, traffic signals, and general illumination." Craford is the chief technology officer of Lumileds Lighting in San Jose, Califor-

nia, and Dupuis is the Steve W. Chaddick Endowed Chair in Electro-Optics and a Georgia Research Alliance Eminent Scholar at the Georgia Institute of Technology. Both are former graduate students of Holonyak, who also received a National Medal of Science in 1990. Holonyak is a John Bardeen Chair Professor of Electrical and Computer Engineering and Physics at the University of Illinois at Urbana-Champaign.

DuPont in Wilmington, Delaware, won a company medal for its "policy and technology leadership in the phase out and replacement of chlorofluorocarbons in the environment during the past three decades." The chair and CEO, **Charles O. Holliday Jr**, accepted the medal on behalf of the company.

Anthony Tweed

SoR Honors Marrucci and Others

The Society of Rheology presented two awards at the 75th meeting of the society, held this past November in Pittsburgh, Pennsylvania.

Giuseppe Marrucci, professor of chemical engineering at the University of Naples in Italy, received the Bingham Medal, the society's highest honor. He was recognized for the "extraordi-

nary breadth and depth of [his] contributions to the science of rheology." According to the citation, the scope of his contributions include his work on entangled polymers, liquid crystals and liquid crystalline poly-



Marrucci

mers, constitutive equations and non-Newtonian fluid mechanics, dilute polymer solutions, and his service to the rheological community.

The 2003 Journal of Rheology Publication Award was shared by Kasiraman Krishnan, Bryan Chapman, Frank S. Bates, Timothy P. Lodge, Kristoffer Almdal, and Wesley R. Burghardt for their article "Effects of Shear Flow on a Polymeric Bicontinuous Microemulsion: Equilibrium and Steady State Behavior," which appeared on page 529 in volume 46 of the journal. Krishnan is a chemical engineer at GE Global Research in Niskayuna, New York. Chapman works as a senior research engineer for ExxonMobil Chemical in Baytown, Texas. Bates is professor and head of

chemical engineering and materials science at the University of Minnesota, Twin Cities. Lodge is a professor of chemistry and a professor of chemical engineering and materials science at the University of Minnesota, Twin Cities. Almdal is head of the department at the Danish Polymer Center at the Risø National Laboratory in Denmark. Burghardt is a professor of chemical and biological engineering at Northwestern University.

ASA Awards Presented in Austin

The Acoustical Society of America held its 146th meeting in Austin, Texas, in November last year. At the meeting, the society honored three individuals for their contributions to the field.

Sabih I. Hayek received the society's Trent-Crede Medal for his "contributions to the understanding of sound interaction with submerged structures." Hayek is a distinguished professor emeritus of engineering mechanics at Pennsylvania State University.

The Silver Medal in Physical Acoustics was presented to **Philip L. Marston**, professor of physics at Washington State University in Pullman. He was recognized for his "contributions to generalized ray theories for acoustical scattering, and the acoustical manipulation of fluids to study fundamental phenomena in fluid mechanics and optics."

Emily Thompson was given ASA's Science Writing Award for Journalists for her book *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900–1933* (MIT Press, 2002). Thompson is a visiting scholar in MIT's Program in Science, Technology, and Society.

IOP Bestows Awards

On 22 January, Britain's Institute of Physics is presenting its prizes for 2004 at an awards dinner in London.

The Charles Vernon Boys Medal and Prize are going to **Mark Lancaster**, lecturer in the department of physics and astronomy at University College London. He is being recognized for his "important contributions to experimental high-energy physics, in particular to the ZEUS experiment (DESY, Hamburg) to investigate the structure of the proton and to the experiment at the Collider Detector at Fermilab (US) to measure the mass of the W-boson."

Elizabeth Swinbank, Fellow in Science Education at the University of York, is the recipient of the Bragg Medal and Prize. She is being honored for her "innovative contributions to the development of the school physics curriculum, in particular as director of the [university's] Salters Horners Advanced Physics project."

The IOP is awarding its Charles Chree Medal and Prize to **Joanna Haigh** for her "outstanding contributions to atmospheric physics, in particular for her work on solar variability and its effect on climate." She is a professor of atmospheric physics at Imperial College London.

Michael B. Green, John Humphrey Plummer Professor of Theoretical Physics at the University of Cambridge, is this year's recipient of the Paul Dirac Medal and Prize. He is being cited for his "crucial role in the development of superstring theory as a credible new framework for physics."

The Duddell Medal and Prize are going to **James Hough** for his "seminal contributions to the design and development of gravitational wave detectors worldwide." He is the director of the Institute for Gravitational Research, Physics and Astronomy at the University of Glasgow.

Ian Ward, recipient of the Glazebrook Medal and Prize, is being acknowledged for his "outstanding contributions to the structural understanding of polymeric materials and the development of innovative processing methods for their manufacture." He is an emeritus professor in the physics and astronomy department at the University of Leeds.

The IOP is handing out its Guthrie Medal and Prize to **Henry Hall**, emeritus professor of physics at the University of Manchester. The society is citing him for his "outstanding experimental and theoretical contributions to quantum fluids and in particular for the development of the "He—"4He dilution refrigerator."

Sharing the Kelvin Medal and Prize are Mike Gluyas, who formerly was a lecturer in the University of Salford's department of pure and applied physics, and Wendy Gluyas, who taught English as a foreign language to undergraduates, linguists, and educators. The husband-wife team, now retired, are being recognized for their "outstanding lecturedemonstrations on the physics of sound and music, delivered to over 200 000 schoolchildren, university students, and the public throughout the UK, Eire, and internationally." The pair currently travels worldwide

to deliver an illustrated demonstration lecture entitled "Musical Squares—Adventures in Sound," which explores the many aspects of sound and hearing.

Martin Bodo Plenio of Imperial College London is being honored with the Maxwell Medal and Prize for his "influential contributions to quantum information theory, in particular the characterization and manipulation of quantum entanglement and its application to the processing of information." He is a professor of quantum physics.

The Mott Medal and Prize are being bestowed on **Ted Forgan** for his "outstanding contributions to condensed matter physics, in particular for his influential work on the study of vortices in superconductors using small-angle neutron scattering and muon spin rotation." He is a professor of condensed matter physics at the University of Birmingham.

Ian Gilmore, principal research scientist at the UK's National Physical Laboratory, is the recipient of the Paterson Medal and Prize. He is being cited for his "major contributions to the analysis of molecules at surfaces, particularly for the development of a new technique (G-SIMS), which allows direct interpretation of spectra. This technique is now available commercially, providing solutions for polymer liquid-crystal display and hard disk developments in industry."

The IOP is awarding its Rutherford Medal and Prize to **David Wark** for his "personal contributions to particle astrophysics, in particular to the field of solar neutrinos." He is a professor of physics at the University of Sussex and the Rutherford Appleton Laboratory near Didcot in Oxfordshire.

Aspnes Set to Be Next President of AVS

David Aspnes is the AVS Science and Technology Society's president-elect for 2004. Aspnes, who will become president of the society in January 2005, succeeded Robert Childs, who is president effective this month (see PHYSICS TODAY, January 2003, page 61).

Aspnes received his BS in 1960 and his MS in 1961, both in electrical engineering, from the University of Wisconsin–Madison. He earned his PhD in physics in 1965 from the University of Illinois at Urbana-Champaign and spent the next two years doing post-doctoral research at Illinois and at Brown University.

In 1967, he became a member of the technical staff at AT&T Bell Laboratories (now Lucent Technologies' Bell Labs) in Murray Hill, New Jersey, where he spent the next 17 years. Aspnes then moved to Bellcore, an R&D and telecommunications company in Piscataway, New Jersey, in 1983. There, he managed the interface physics department and later headed the optical physics department, before joining North Carolina



Aspnes

State University (NCSU) faculty in 1992. Also a member of the American Physical Society and the Optical Society of America, he is currently a Distinguished University Professor of Physics and head of the real-time diag-

nostics and control Group at NCSU. His research spans a broad spectrum of subjects, including semiconductor and surface physics and optical spectroscopy.

When asked about his vision for AVS, Aspnes said, "AVS and its members have a more than 50-year history of identifying relevant technologies and expediting their implementation through a unique mix of science and technology. I will work toward promoting these interactions by encouraging volunteer participation, particularly by younger members, and by strengthening relationships with the international community and with sister organizations such as the APS."

In other AVS election results, Joseph Greene (University of Illinois at Urbana-Champaign) retains his position as secretary and John Coburn (University of California, Berkeley) remains the society's treasurer. Also taking office this month are two new AVS directors: Neal Shinn (Sandia National Laboratories in Albuguerque, New Mexico) and Anne Testoni (Varian Semiconductor Equipment Associates Inc in Gloucester, Massachusetts). Fred Dylla (Thomas Jefferson National Accelerator Facility in Newport News, Virginia) and Paula Grunthaner (NASA's Jet Propulsion Laboratory at Caltech) are AVS's new trustees.

Van Stryland Is OSA Vice President for 2004

On 2 January, Eric Van Stryland, director of the School of