Dresselhaus to Head AIP Board

At its meeting next month, the American Institute of Physics governing board expects to formally ratify the selection of **Mildred Dresselhaus** as its chair, with her five-year term beginning at the close of that meeting. Dresselhaus, Institute Professor of Electrical Engineering and Physics at MIT, will succeed John Armstrong. Armstrong said he has enjoyed his term and expects to remain involved with science and technology policy issues, but in a smaller role.

DONNA COVENEY/MIT

Dresselhaus

Dresselhaus brings a wealth of experience to AIP. She directed the US Department of Energy's Office of Science (2000–01) and has been president of the American Association for the Advancement of Science (1997–98) and of the American Physical Society (1984–85). A member of the National Academy of Engineering and the National Academy of Sciences, she was treasurer of NAS from 1992 to 1996. Dresselhaus has been on the MIT faculty for more than 35 years. Her research interests started out in experimental solid-state physics; more recently, she has been heavily involved in nanoscience and nanotechnology. She is also well-known for mentoring and creating opportunities for women in science and engineering.

"I see my service as chairman of the AIP board as an opportunity to help member societies of the American Institute of Physics provide the infrastructure that promotes world-class research, education, and collaborative activities across disciplines," said Dresselhaus. "I am hoping that my experience in government will help in gaining public understanding and support for our research and educational activities. My strong research background and current research involvement will help me to give focus to providing the maximum possible support to the promulgation of scientific publications to the benefit of the research community in a fiscally responsible way." She added that she plans to use her extensive academic experience to "facilitate programs in the member societies in support of the education of the next generation of scientists, for undergraduates, graduate students, and postdocs as they enter into fruitful and satisfying careers, while paying proper attention to 'pipeline' and 'diversity' issues."

The AIP board consists of 40 individuals including the chair, CEO of AIP, secretary of AIP, and representatives selected by either the member societies or the governing board. Dresselhaus was recommended by a committee headed by Christopher Marshall, a medical physicist and director of radiation safety at the New York University Medical Center. Fellow committee members were Lawrence Crum (University of Washington–Seattle), Jerome Friedman (MIT), Robert Hilborn (Amherst College), Leonard Kuhi (University of Minnesota, Twin Cities), and Myriam Sarachik (City College of the City University of New York).

Dresselhaus "brings experience in society affairs, having served in leadership positions in [scientific] societies . . . as well as high-level positions in government and academic circles," said Marc Brodsky, executive director and CEO of AIP. "I look forward to working with her to continue to increase the effectiveness of AIP in serving its 10 member societies and their 125 000 individual members."

Born in Brooklyn, New York, in 1930, Dresselhaus graduated from Hunter College in New York City in 1951 with a BA in physics and was a Fulbright fellow in the Cavendish Laboratory at Cambridge University from 1951 to 1952. On returning to the US, she earned her MA in physics in 1953 from Radcliffe College. After receiving her PhD in physics from the University of Chicago in 1958, she was an NSF-sponsored postdoctoral fellow at Cornell University before joining MIT in 1960.

APS Bestows Honors in a Wide Range of Fields

At its annual March meeting, to be held this year in Austin, Texas (see the meeting preview on page 56), the American Physical Society will recognize the outstanding efforts of 18 individuals in a wide variety of fields: biophysics, polymers, atomic and molecular physics, optics, and condensed matter physics.

The David Adler Lectureship Award will go to **Ivan Schuller** for his "research in metallic heterostructures and superlattices," which he communicates "with unusual enthusiasm and eloquence," according to the citation. Schuller is a professor of physics and a layer leader of the California Institute of Telecommunications and Information Technology at the University of California, San Diego.

APS will bestow Apker Awards on two students for undergraduate thesis work done in one case at a PhD-granting institution and, in the other case, at a non–PhD-granting institution. The award for work at a doctorate-granting university will go to **Jason Alicea** for his thesis entitled "The Resistance of Multilayers with Long Length-Scale Interfacial Roughness," done under the supervision of Selman Herschfield at the University of Florida, Gainesville. Alicea is now a graduate student in physics at the University of California, Santa Barbara.

The Apker Award for work at a non–PhD-granting institution will be conferred on **Stephen Charles Doret**, who is now a physics graduate student at Harvard University. His undergraduate thesis, supervised by Protik Majumder at Williams College, was "A Precise Measurement of the Stark Shift in the $6P_{1/2} \rightarrow 7S_{1/2}$ 378 nm Transition in Atomic Thallium."

The Herbert P. Broida Prize will go to **George Flynn**, Higgins Professor of Chemistry and director of the Environmental Molecular Sciences Institute at Columbia University. He is being recognized for his "pioneering, insightful, and sustained studies of vibrational energy transfer in polyatomic molecules using a number of innovative experimental techniques, and for recent contributions to [the] understanding of liquid–solid interfaces using scanning probe techniques."

Boris Altshuler, professor of physics at Princeton University, will receive the Oliver E. Buckley Condensed Matter Physics Prize for his "fundamental contributions to the understanding of the quantum mechanics of electrons in random potentials and confined geometries, including pioneering work on the interplay of interactions and disorder."

Rudolf Tromp will be honored with the Davisson–Germer Prize in Atomic or Surface Physics for his "pioneering work in understanding the structure and growth of semiconductor

surfaces and interfaces." He is the manager of molecular assemblies and devices at IBM Corp's T. J. Watson Research Center.

This year's recipient of the John H. Dillon Medal is **Helmut Strey**, professor of polymer science and engineering at the University of Massachusetts Amherst. He is cited for "contributing significantly to our understanding of the physics of biopolymers and polyelectrolytes."

Arthur Ashkin will receive the Keithley Award for Advances in Measurement Science, for "theoretical and experimental contributions to the understanding of laser cooling and trapping of atoms and particles." The citation additionally praises Ashkin for "demonstrating the optical gradient forces on atoms and the trapping of atoms with light, and for inventing optical tweezers and showing how they can be used to measure the physical forces generated by biological molecular motors." Ashkin is retired from AT&T Bell Laboratories, where he was head of the laser science research department.

APS will present its Irving Langmuir Prize in Chemical Physics to **Phaedon Avouris**, manager of nanometer-scale science and technology at IBM Corp's T. J. Watson Research Center. Avouris is being cited for his "fundamental pioneering contributions to nanostructures and atomic-scale phenomena at surfaces."

The James C. McGroddy Prize will go to **Charles Leiber**, Mark Hyman Professor of Chemistry at Harvard University. The citation praises Leiber for his "outstanding contributions in nanostructured and functional nanostructured materials."

Pierre Hohenberg will receive the Lars Onsager Prize for his "contributions to a wide range of topics in statistical and condensed matter physics, including the theory of dynamic scaling close to critical points, the theory of pattern formation in nonequilibrium systems, and density functional theory." Hohenberg is the deputy provost for science and technology and an adjunct professor of physics and applied physics at Yale University.

The George E. Pake Prize will go to **C. Paul Robinson**, Sandia National Laboratories president and laboratories director. The prize is being awarded in recognition of Robinson's "leadership roles as Director of the Sandia National Laboratories and as Head of the US Delegation to the US/USSR arms control talks in Geneva." He is also being honored for his "pioneering contributions to the development of high explosives lasers, e-beam initiated chemical lasers, and molecular laser isotope separation methods."

The Earle K. Plyler Prize for Molecular Spectroscopy will be shared by **Kevin Lehmann** and **Giacinto Scoles** for their "collaborative contributions to our understanding of intramolecular dynamics by high resolution spectroscopy and to atomic and molecular spectroscopy in liquid [helium] nanodroplets, through the experimental and theoretical development of molecular and cluster beam spectroscopy." Both recipients are at Princeton University: Lehmann is a professor of chemistry and Scoles is the Donner Professor of Science in the chemistry department and in the Princeton Materials Institute.

Andrew Lovinger will receive the Polymer Prize for his "contributions to fundamental understanding of structure, morphology, and properties in technologically important polymers." Lovinger directs the polymers program in the materials research division at NSF. He is also a consultant at Bell Laboratories, from which he retired last year.

APS will give its Prize to a Faculty Member for Research in an Undergraduate Institute to **Dhiraj Sardar** for his "outstanding research on the interaction of laser light with matter, particularly the spectroscopic characterization of new solid-state media." The citation also praises his "involvement and support of undergraduates in his research and . . . his dedication to minority student education." Sardar is a professor in the physics and astronomy department at the University of Texas at San Antonio and director of the university's laser research laboratory.

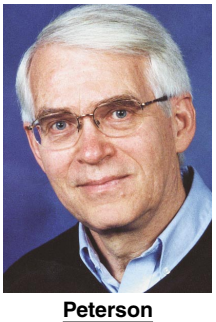
Steve R. White, professor of physics and astronomy at the University of California, Irvine, will garner the Aneesur Rahman Prize for Computational Physics. He is being recognized for his "development, application, and dissemination of the numerical density matrix renormalization group (DMRG) method."

APS will present its John Wheatley Award to **Kennedy Reed**, a physicist at the Lawrence Livermore National Laboratory, for "multifaceted contributions to the promotion of physics research and education in Africa." The citation praises Reed for "developing agreements for exchange of faculty and students between USA and African institutions, for organizing and conducting international workshops and conferences on physics in Africa, and for advocating increased USA and international involvement with physics in Africa."

Peterson is AAPT Vice President for 2003

Richard Peterson, physics professor at Bethel College in St. Paul, Minnesota, took office last month as vice president of the American Association of Physics Teachers. He succeeded **Jim Nelson** and will become president-elect in 2004 and president in 2005. **Charles Holbrow** also began his term as AAPT president (see PHYSICS TODAY, January 2001, page 64).

Peterson earned a BS in mathematics and physics from the University of Wisconsin–River Falls in 1964 and attended Michigan State University, where he received an MS in 1966 and a PhD in 1969, both in physics. Peterson began his professional career at Los Alamos National Laboratory in 1969, initially as a postdoctoral fellow under Franz Jahoda and later as a visiting staff member, a position he held for the next nine summers. Following his postdoc, Peterson joined the physics faculty at Western Illinois University in Macomb as an assistant professor and became an associate professor in 1974. Peterson went on to Bethel College in 1980, where he served as chair of the physics department until 1996.



Peterson

Also a member of the American Physical Society and the Optical Society of America, Peterson is an active participant in physics education and especially enjoys the challenge of research and of teaching applied optics and acoustics to undergraduate students. In 1998, his efforts were rewarded when he received the APS Prize for Research at an Undergraduate Institution. Peterson's appreciation of AAPT's mission statement—to enhance the understanding and appreciation of physics through teaching— is obvious. "[It] is surely the goal of my professional life," he said, "and I very much look forward to the challenges of the next few years."

In other AAPT election results, **Mary Beth Monroe** (Southwest Texas Junior College in Uvalde, Texas) was reelected to a two-year term as secretary and **Chuck Stone** (North Carolina A&T State University in Greensboro) was chosen for a three-year term as the two-year college member-at-large on the AAPT executive board.