

APS presents six awards at Chicago meeting



APPELBAUM



PIMENTEL



FISCHER



HULM



KUNZLER



HAMANN



MATTHIAS



MCCLURE



COHEN

The American Physical Society presented six awards to nine physicists at its March meeting in Chicago.

The Davisson-Germer Prize was presented jointly to Joel A. Appelbaum and Donald R. Hamann, both of Bell Laboratories in Murray Hill, New Jersey. The award, which recognizes outstanding work in atomic or surface physics, was presented to Appelbaum and Hamann for their "pioneering analysis of the electronic structure of semiconductor surfaces." Appelbaum received his PhD in 1966 from the University of Chicago. He has been a member of the technical staff at Bell Labs since 1967, with a brief interruption in 1967-68 to teach at the University of California at Berkeley. Hamann did his graduate work at MIT and received his PhD in 1965. He began at Bell Labs as a member of the technical staff of the theoretical physics department in 1965 and last year was made head of that department.

The Irving Langmuir Prize in Chemical Physics was awarded to Donald S. McClure, a professor of chemistry at Princeton University. This award recognizes outstanding interdisciplinary research in chemistry and physics and consists of \$5000 and a citation certificate. McClure was cited "for his early work on the singlet and triplet states in organic molecules and crystals and on the optical spectra of transition metal ions which was basic to the development of these fields." McClure received his PhD in physical chemistry in 1948 at the University of California at Berkeley. He remained at Berkeley teaching chemistry and had achieved the rank of assistant professor by the time he left in 1955 to join the technical staff of RCA Laboratories. From 1962 to 1967 he was a professor of chemistry at the University of Chicago. He joined the Princeton faculty in 1967.

George Pimentel, deputy director of the National Science Foundation, received the Earle K. Plyler Prize for notable contributions to molecular spectroscopy. The award consists of \$1000. Pimentel was cited "for his development of and contributions to chemical lasers, matrix isolation spectroscopy and rapid-scanning infrared spectrometers." Before coming to the NSF, Pimentel was a professor of chemistry at Berkeley, where he had

taught since receiving his PhD in 1949 from the University of California at Los Angeles.

The APS High Polymer Physics Prize went to Erhard W. Fischer of the Institut für Physikalische Chemie of the University of Mainz, Federal Republic of Germany. His citation reads, "for his outstanding investigations of the structure, morphology and properties of amorphous and crystalline polymers." Fischer was awarded a doctorate in 1957 from the Technical University in Stuttgart. In 1963, after five years at the Institute of Physical Chemistry at the University of Mainz, he came to the US as a research fellow at the Research Triangle Institute in Durham, North Carolina. He went back to Mainz in 1964 for a year and then returned to the US as associate professor at the Brooklyn Polytechnic Institute. Since 1966 Fischer has been a full professor of chemical physics at Mainz.

John K. Hulm of the Westinghouse Research Laboratories in Pittsburgh, J. Eugene Kunzler of Bell Laboratories in Murray Hill and Bernd T. Matthias of Bell Laboratories and the University of California, San Diego shared the APS International Prize for New Materials. The \$5000 prize was awarded to the three "for their discovery of intermetallic compounds and alloys exhibiting unusually high superconducting transition temperatures, and for their demonstration that these materials retain their superconductivity under conditions of high currents and fields." Hulm holds a PhD in physics from Cambridge University in England that he received in 1949. He held several posts at the University of Chicago before joining Westinghouse in 1954. During the following two decades he headed several research projects engaged in exploring solid-state physics, cryogenics and superconductors. From 1974 to 1976 Hulm served as the science attache of the US Embassy in London before rejoining Westinghouse Research Laboratories in Pittsburgh. Kunzler received his PhD in physical chemistry in 1950 from the University of California. He joined Bell Labs in 1952 and from 1961 to 1969 headed the metal-physics research department there. Since 1969 Kunzler has been director of the electronic materials and device laboratory. Matthias

we hear that

earned his PhD at the Swiss Federal Institute of Technology in 1943 and remained there until 1947. He then spent a year at the division of industrial cooperation of MIT. In 1948 Matthias joined Bell Labs, with whom he is still associated today. From 1948 to 1951 he was assistant professor of physics at the University of Chicago. In 1961 he became professor of physics at the University of California at La Jolla, as it was called then. In 1971 Matthias was made director of the Institute for Pure and Applied Physical Sciences at the University of California, San Diego.

The Oliver E. Buckley Solid State Physics Prize was presented to Marvin L. Cohen, a professor of physics at the University of California, Berkeley. The \$5000 award recognized his "timely explanations and novel predictions of electronic properties of solids through the imaginative use of quantum-mechanical calculations. Cohen holds a PhD in theoretical solid-state physics, which he received in 1964 at the University of Chicago. Cohen has been at Berkeley since 1964.

Abraham Pais wins Oppenheimer prize

The 11th annual J. Robert Oppenheimer Memorial Prize of the University of Miami's Center for Theoretical Studies has been awarded to Abraham Pais of Rockefeller University. P.A.M. Dirac presented the prize, which consists of a gold medal, a citation and \$1000. Designed to recognize outstanding contributions to the theoretical natural sciences and to the philosophy of science, the Oppenheimer prize was given to Pais for his contributions to elementary-particle physics.

Pais received a bachelor of science degree from the University of Amsterdam in 1938 and his master's degree in 1940 and PhD in 1941 from the University of Utrecht in Holland. Prior to joining the faculty of Rockefeller University in 1963 he was a Rask Oersted research fellow in Copenhagen (1946), a member of the Institute for Advanced Study at Princeton University (1946-50), and a member of the faculty there from 1950 to 1963.

MacCready wins AIAA Reed Aeronautics Award

Paul B. MacCready has won the Reed Aeronautics Award of the American Institute of Aeronautics and Astronautics. MacCready, president of AeroVironment, Inc., was honored for "the ingenious conception, creative design, and masterly execution of the Gossamer Condor—the first man-powered aircraft capable of sustained flight in all directions under

perfect equilibrium and control."

The Reed Award is given each year "to honor the most notable achievement in the field of aeronautics science and engineering." The award consists of a medal, certificate and rosette pin.

MacCready founded AeroVironment in 1971, and prior to that was simultaneously involved as president of Meteorology Research, Inc. (1951-70), president of the affiliated Atmospheric Research Group (1958-70), director of Cohu Electronics, Inc. (1966-70) and consultant and then research associate to the Muntal Foundation (1953-58). MacCready earned his BS in physics at Yale (1947), his MS in physics at Caltech (1948) and his PhD in aeronautics at Caltech (1952).

Hardy and Boyd share Steacie Prize

The Steacie Prize for 1978 has recently been awarded jointly to Walter N. Hardy and David W. Boyd, both of the University of British Columbia. The prize, which is named after a former president of the National Research Council of Canada, has been awarded annually since 1964 for distinguished contributions to the natural sciences in Canada by persons under 40 years of age. It currently consists of a cash award of \$3000.

Hardy, a professor of physics, was cited for "his recent observation of the microwave spectrum of isolated pairs of ortho-H₂ molecules in a solid matrix of para-H₂ molecules." Hardy carried out his undergraduate and graduate studies at the University of British Columbia. After completing his PhD thesis in 1964, he spent two years at Saclay, France with Anatole Abragam's group on an NRC postdoctoral overseas fellowship and a Rutherford memorial fellowship. He was a staff member at the North American Rockwell Corporation's Science Center in California for five years, returned to UBC as an associate professor in 1971, and promoted to professor in 1974.

Boyd, a mathematician, won his award for his research in functional and numerical analysis.

Fifth Marconi Fellowship awarded to John Pierce

The fifth Marconi International Fellowship has been awarded to John R. Pierce, professor of engineering at Caltech. The fellowship was established in 1974 to commemorate inventor Guglielmo Marconi's creative contributions to scientific discovery, engineering and technology. The winner receives a \$25 000 grant "to undertake or complete a project or study which has as its ultimate objective the well-being of mankind."

Pierce was educated at Caltech, where

he earned his BS, MS and PhD degrees in electrical engineering in 1933, 1934 and 1936, respectively. He joined the staff of Bell Labs in 1936. Early in his career he devoted himself to the development of high-frequency electron tubes, particularly traveling-wave tubes, and to microwave research. During World War II he concentrated on the development of electronic devices for military applications. He became director of electronics research at Bell Labs in 1952, and director of research in electrical communications in 1955. He retired in 1971 as executive director of research in the communications-sciences division and became a professor of engineering at Caltech.

In 1954 Pierce analyzed the possibilities of radio relay by way of artificial satellite and, in 1955, two years before the launching of the first satellite, he offered proposals for satellite communications. Later in his career his interests shifted to the computer and to computer music. Pierce, who has published a number of science-fiction stories, owns more than 80 patents for his inventions in electron tubes and communications circuits, especially electron multipliers, electron guns and microwave tubes.

Michael Beer, professor and chairman of the Thomas C. Jenkins Department of Biophysics at The Johns Hopkins University, has been elected president of the Electron Microscopy Society. Beer will serve for a year as president-elect to be followed by a year as president of the society.

John G. Simmons, formerly professor of applied science and engineering at the University of Toronto, has joined the staff of Lehigh University in Bethlehem, Pennsylvania, as Sherman Fairchild Professor of Solid State Studies-Electrical Engineering.

Warren E. Winsche has been appointed Deputy Director of Brookhaven National Laboratory. He has been associate director at Brookhaven for energy for the past four years.

Simon Ramo, recently retired Vice Chairman of the Board of TRW, Inc.; **Robert T. Jones**, senior staff scientist at NASA-Ames Research Center; and **Alexander H. Flax**, president of the Institute for Defense Analyses, have been elected Honorary Fellows of the American Institute of Aeronautics and Astronautics.

Betsy Ancker-Johnson has been appointed a Vice President in charge of the environmental activities staff at General Motors. She has served as Assistant Secretary of Commerce for Science and Technology and most recently associate director for physical research at Argonne National Laboratory.