

TI Prize awarded to Patel

Chandra Kumar Naranbhai Patel, director of the Physical Research Laboratory at Bell Telephone Laboratories, Murray Hill, New Jersey, has been chosen by the Texas Instruments Foundation to receive its 1978 Founders' Prize. Awarded "for outstanding achievement in physical science, health science, management science, engineering or mathematics," the \$35 000 prize was instituted to honor the founders of Texas Instruments, Inc. This is the fourth awarding of the prize since 1974.

The foundation notes in the citation that Patel's peers "acknowledge that few scientists have demonstrated a comparably broad range of achievement in science." This range of accomplishment includes the design and development of the widely-used carbon-dioxide laser, the most powerful laser available today. His recent work on tunable spin-flip-Raman lasers has produced high-resolution measurements in molecular-gas spectroscopy. This degree of resolution has made possible the detection of very small concentrations of constituent gases. One application of these devices is the measurement of ozone depletion in the stratosphere.

Patel was born in Baramati, India in 1938. He received a BE from the College



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of Engineering, Poona University, India (1958), and a MS and a PhD from Stanford University (1959 and 1961, respectively). In 1961, he joined the technical staff of Bell Laboratories. The Optical Society of America awarded Patel its Adolph Lomb Medal in 1966.

ocean currents, particularly the Gulf Stream.

Nobel Prize laureate Linus Pauling was presented with the National Academy of Sciences Award in Chemical Science for "innovative research in the chemical sciences."

Five physicists share Hewlett-Packard prize

A group of five physicists working independently in acousto-electronics has been awarded the 1979 Hewlett-Packard Europhysics Prize. The group includes: Eric A. Ash, University College London, UK; Jeffrey H. Collins, University of Edinburgh, UK; Yuri V. Gulaev, Institute of Radio Engineering, Moscow, USSR; Kjell A. Ingebrigtsen, Norwegian Institute of Technology, Trondheim and Edward G. S. Paige, Oxford University, UK. The winners, who will share 20 000 Swiss Francs (\$11 800), were recognized for their collective role in developing the theory and practical applications of surface acoustic waves.

Blandin and Taylor win European medals

The Institute of Physics, London, recently announced the winners of two awards it administers in conjunction with other European physical societies. André Blandin of the Université Paris-Sud in Orsay is this year's recipient of the Holweck Medal and Prize. The Holweck Medal is awarded in alternate years by the IOP and the French Physical Society. The 1979 Max Born Medal and Prize of the IOP and the German Physical Society will be presented to John Bryan Taylor, Head of the Theoretical Division of the UK Atomic Energy Administration's Culham Laboratory.

Blandin was cited for "his outstanding contributions to the theory of metals." His work in solid-state theory includes studies of the application of pseudopotentials in the estimation of the coherence energies between metals and alloys, of the charge and spin oscillations around a transition impurity in a normal matrix and of the Kondo effect of real impurities

National Academy of Sciences awards

The National Academy of Sciences honored a number of scientists at its annual meeting last spring.

Charles T. Kowal, a member of the staff of Hale Observatories (jointly supported by Caltech and the Carnegie Institution of Washington) received the James C. Watson Medal and a \$5000 honorarium. Cited for his "contributions to the science of astronomy," Kowal is the discoverer of the thirteenth and the probable fourteenth moons of Jupiter, some 80 supernovae and Chiron, a miniplanet located between the orbits of Saturn and Uranus.

The J. Lawrence Smith Medal was awarded to Ralph B. Baldwin, president of the Oliver Machinery Co for his "original investigations of meteoric bodies." Baldwin's other research includes studies

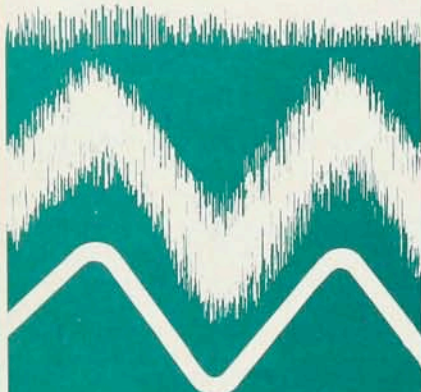
of the Moon, novae, eclipsing binary stars, stellar atmospheres and spectral classification of stars.

MIT professor of geophysics and physics, Irwin Ira Shapiro won the Benjamin Apthorp Gould Prize. The prize, which includes a \$5000 award, was presented "in recognition of scientific accomplishments in the astronomy of precision." Shapiro has done work in dynamical, radar and radio astronomy and is also interested in experimental general relativity.

Henry Melson Stommel, senior scientist at Woods Hole Oceanographic Institution, was honored for his "original contribution in the science of oceanography" with the Alexander Agassiz Medal and \$1000. Stommel concentrates his research efforts on the dynamics of deep

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in real metals. In surface physics, Blandin was at the forefront of investigations into the difference between surface and bulk structure and its influence on the phonon spectrum near the surface. He has also studied the behavior of a moving charge near the surface of a metal.

Taylor will be recognized "for his work on the theory of plasmas particularly in relation to controlled nuclear physics," at the annual meeting of the German Physical Society in Ulm this month. The direction of his theoretical work in plasma behavior has been toward practical applications. A recent paper described a method to calculate a wide range of instabilities in confinement systems and also allows the maximum value of beta obtainable in tokamak systems such as JET to be determined for the first time. Other recent work by Taylor presents a mathematical model of the scaling laws for plasma confinement.

Cole Award for biophysics goes to Edidin and Cone

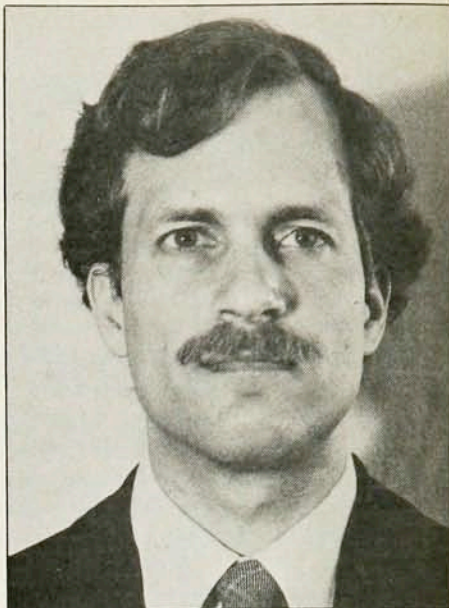
The American Biophysical Society has designated two Johns Hopkins University professors, Michael Edidin and Richard Cone, as the recipients of the Kenneth S. Cole Award for 1979. Presented annually by the Society's membrane biophysics subgroup, the award recognizes individuals who have made significant contributions to membrane biophysics.

Edidin, professor of biology, and Cone, professor of biophysics, were cited for their research on protein mobility in cell membranes. Working independently, they found that cell membranes are highly fluid. This fluidity allows proteins and other molecules to act as pathways for messages as they pass through the membranes. Prior to the publication of the researchers' findings in 1970 and 1971, the fluid nature of cell membranes was unsuspected.

Cone was educated at MIT and the University of Chicago (PhD Physics, 1963). He worked on the staffs of the University of Chicago and Harvard University. In 1973, Cone joined the faculty of The Johns Hopkins University, where Edidin had been working for eight years.

Harper receives AAS Pierce Prize

The American Astronomical Society has chosen D. A. Harper Jr as this year's recipient of the Newton Lucy Pierce Prize. Harper, an associate professor of astronomy at the University of Chicago was cited for "his outstanding contributions in infra-red observations of stars, planets, interstellar gas and dust, and distant



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galaxies, based on innovation in the development of instruments and on careful calibration of the signals." In particular, the Society commended his observations of faint astronomical objects from airborne telescopes and his development of the Winston radiation detector (in collaboration with Roger H. Hildebrand and Roland Winston).

Harper earned a bachelor's degree in astronomy (1966) from Rice University and a doctoral degree in space science (1971) from the same institution. He joined the faculty of the University of Chicago in 1971.

Hans Liepmann wins Michelson-Morley Award

This year's Michelson-Morley Award was given to Hans Wolfgang Liepmann, Charles Lee Powell Professor of Fluid Mechanics and Thermodynamics and director of the Graduate Aeronautical

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