



TOWNES

of Physics. By 1967 Townes had transferred to Berkeley.

Townes has won many honors for his research work. Besides the basic patent on the maser and, with Arthur L. Schawlow, one on lasers, he is also known for his studies in microwave spectroscopy, nuclear structure, and radio and infrared astronomy.

Möhwald and Reithler share German award

Two German physicists, Helmuth Möhwald and Hans Reithler, have shared the German Physical Society's 1979 Physics Prize. The 5000 DM prize (approximately \$2800) is presented "to encourage young physicists through public acknowledgement of their outstanding work, to direct attention to them and so to serve as a stimulus to the new generation." The award was made at the 43rd Physics Day held in Ulm, Federal Republic of Germany in September.

Möhwald, of Dornier Systems Ltd, was honored for his work on "the transfer properties, phase transitions and molecular dynamics of organic charge-transfer crystals." He studied a particular class of single crystals, namely those composed of two types of planar organic molecules which are alternately stacked much like coins. Among other things, Möhwald discovered that diffusion of photoelectrons and excitons takes place primarily along the crystal's stacking axis and is accompanied by a disturbance of the crystal lattice. This type of crystal is found in photocopier devices and can be considered as a model for various biophysical systems such as the charge and energy transport mechanism of photosynthetic bodies.

Reithler, of the 3rd Physics Institute of Rhein-Westfalia Technical High School, was recognized for his "experimental confirmation of the scattering of neutrinos by electrons." Using neutrino streams of high intensity and purity from the proton synchrotron at CERN, Reithler scattered neutrinos off the electrons found in a 30-ton aluminum multiplate spark chamber. Since the scattering cross section of the electron-neutrino collisions was roughly one ten-thousandth of that of a nucleon-neutrino collision, it took over 1.5 million spark chamber pictures to identify 19 electron-neutrino reactions. That the collisions occurred with electrons rather than nucleons was determined by energy and structure analyses of the generated electromagnetic cascades.

OSA acknowledges Mahan's contributions

For the third time, the Optical Society of America has honored someone with its Distinguished Service Award. The recipient this time is Archie I. Mahan, who has retired after serving for 20 years as treasurer of the Society.

Mahan was granted a bachelor's degree from Friends University in 1931. He then studied at the Johns Hopkins University where he earned his doctorate in physics in 1940. He has held professional positions with Georgetown University, the US Naval Ordnance Laboratory and the US Naval Gun Factory. From 1962 until 1979 Mahan had served as principal physicist at the Applied Physics Laboratory of Johns Hopkins. His research concerns a wide range of topics in geometrical and physical optics such as optical design, interferometry, astronomical refraction, and diffraction by telescopes, plane-parallel plates, cones and circularly symmetric apertures.

The Distinguished Service Award was established in 1973 "to recognize individuals who make distinguished contributions to optics through administration, editorship, and other service to the optical community."

AAPT honors Calandra with Millikan Award

Alexander Calandra, professor of physics at Washington University, won the 1979 Robert A. Millikan Lecture Award of the American Association of Physics Teachers. With the award, the AAPT recognized Calandra's "long and devoted efforts to improve the teaching of physics." The award, which consists of \$300 and a citation, is supported by an annual gift from Prentice-Hall, Inc.

Calandra majored in chemistry at Brooklyn College (1935) and earned a doctoral degree in chemistry and statistics



CALANDRA

in 1940. During the years when he was an assistant professor of chemistry at Brooklyn College (1938 to 1945), Calandra turned his attention away from chemistry and toward physics. He then took a position at the University of Chicago, where he assisted Enrico Fermi in teaching freshman physics. When Arthur Compton invited Calandra to Washington University to help develop a program of science education in 1947, he left Chicago. This began an association which has continued for over 30 years. While still maintaining his ties to Washington, he became chairman of the Science Division of Webster College in 1969. There, Calandra worked on another plan to teach science to non-science students. He is also responsible for several elementary school-level science programs.

Gerald P. Alldredge, recently of the University of Missouri-Rolla, is now associate professor of physics at the University of Missouri-Columbia.

The Physics Department of Montana State University has added to its staff Christopher Cosgrove of the University of Sydney and Peter Zurcher of the ETH, Zürich.

Daniel J. Kevles, professor of history at Caltech, has been awarded the National Historical Society's 1978 Book Prize for his volume, *The Physicists: The History of a Scientific Community in Modern America* (a chapter of the book appeared in PHYSICS TODAY, February 1978, page 23).

Two physicists from General Motors Research Laboratories in Warren, Michigan have joined the faculty of the University of Texas at Austin. Robert Herman has