

## German Physical Society gives theoretical-physics awards

The German Physical Society has announced the winners of three of its annual awards: Ernst C. G. Stueckelberg was awarded the Max Planck Medal, Franz Wegner received the Walter Schottky Prize and Hermann Haken was honored with the Max Born Medal and Prize, which is given jointly with the (British) Institute of Physics.

Stueckelberg, emeritus professor of theoretical physics at the University of Geneva, studied under Arnold Sommerfeld and earned his doctorate in 1927 in Basel. He spent 1930–32 as an assistant professor at Princeton University. Since 1935 he has served on the faculty of the University of Geneva.

The Max Planck Medal was given to Stueckelberg for work in quantum field theory, molecular physics and thermodynamics. His interest in quantum field theory dates from 1934; among his contributions in this area was the consideration of positrons as negative-energy electrons running backwards in time. He developed also a theory of nuclear forces based on the exchange of vector bosons (or "Stueckelberg divergences") and the idea of the renormalization group, which has had numerous applications in the



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WEGNER

theory of phase transitions. His recent work has included a study of thermodynamics in special and general relativity.

Wegner is professor at the University of Heidelberg Institute for Theoretical Physics. He received the Walter Schottky Prize for his theoretical work in the areas of phase transitions and elementary particles. In 1972 he earned his "habilitation" at the University of Cologne and then was affiliated in turn with the Munich Technische Hochschule, the Max Planck Institute for Physics and Brown University. He assumed his current position in Heidelberg in 1974.

The Max Born Medal and Prize was presented to Haken for his contributions to quantum optics and solid-state physics. He was the first to establish a quantum-mechanical theory of laser discharges and, in the area of solid-state theory, he calculated the binding energy of the exciton (also known as the "Haken potential"). Since 1960 he has been professor of theoretical physics at the University of Stuttgart. During his career he has held positions at the University of Liverpool, Cornell University and Bell Laboratories, Murray Hill, N.J., as well as at institutions in Japan and the USSR.

### Iijima and Cowley share crystallography prize

Sumio Iijima and John M. Cowley, both of Arizona State University, have been named recipients of the Bertram E. Warren Award in diffraction physics. The Warren Award is presented by the American Crystallographic Association under the sponsorship of IBM. Iijima and Cowley received the award for the development of techniques for the direct imaging of crystal-structure atom configurations through the use of high-resolution electron microscopy.

A Japanese citizen, Iijima received his doctorate in 1968 from Tohoku University. He spent two years with the physics department there before accepting his current position as research associate at Arizona State University in 1970.

Cowley has been Galvin Professor of Physics since 1970. Prior to this appointment he worked primarily in Australia, first with the Commonwealth Sci-

entific and Industrial Research Organization (1945–62) and then as professor of physics at the University of Melbourne (1962–70). He holds doctorates from the Massachusetts Institute of Technology and the University of Adelaide.

### Payne-Gaposchkin honored by Astronomical Society

The American Astronomical Society has chosen Cecelia H. Payne-Gaposchkin as the Henry Norris Russell Lecturer for 1976. Emeritus professor of astronomy at Harvard University and staff member of the Smithsonian Astrophysical Observatory, Payne-Gaposchkin was recognized for her contributions to the areas of stellar atmospheres, spectral classification, variable stars and galaxies.

In 1925 Payne-Gaposchkin was awarded a PhD by Radcliffe College for her book *Stellar Atmospheres*. She joined the staff of the Harvard Observa-

tory in 1923 and, in 1956, was appointed Phillips Professor of Astronomy at Harvard. For ten years she held this position jointly with the chairmanship of the department of astronomy at Harvard.

### Helfrich wins Hewlett-Packard Europhysics award

The annual Hewlett-Packard Europhysics Prize of the European Physical Society has been presented to Wolfgang Helfrich, associate professor of physics at the Freie Universität (Berlin). The prize is given in recognition of Helfrich's contributions to the physics of liquid crystals and consists of 20 000 Swiss francs.

Helfrich received his doctorate from the Munich Technische Hochschule. He worked as an experimental physicist in Munich and with the National Research Council in Ottawa, 1960–66; during this period he studied the electrical and optical properties of organic crystals. He



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accepted his current position in 1973 after having been affiliated with RCA (Princeton, N.J.) and F. Hoffman-La Roche (Basel, Switzerland). Helfrich's recent research has been concerned with the physics of membranes.

**Kurt J. Linden** has been named manager of the solid-state device section of Laser Analytics Inc; prior to this appointment, Linden had been a senior member of the R&D staff and group leader at Raytheon Co (Waltham, Mass.).

Formerly with Itek Corp, **Julius Feinleib** has joined the staff of Walter J. Schafer Associates (Wakefield, Mass.) to head a program for the development of experimental systems for high-energy laser applications.

**Peter A. Wolff** has been named the new director of the Massachusetts Institute of Technology's Research Laboratory of Electronics. Wolff was formerly head of the physics department's solid-state and atomic-physics division and director of the MIT Center for Materials Science and Engineering.

In September **James E. White** will join the faculty of the Colorado School of Mines as the first Charles Henry Green Professor of Exploration Geophysics; White is currently Nelson Professor of Geological Sciences at the University of Texas at El Paso.

At the Energy Research and Development Administration, **Maurice J. Katz** has been appointed special assistant to the Assistant Administrator for Solar, Geothermal and Advanced Energy Systems; Katz was formerly technical assistant to the director, Division of Controlled Thermonuclear Research.

The University of Maryland, College Park has announced the promotion of five associate professors to the rank of professor: **Douglas G. Currie** in atomic physics and quantum electronics; **Bice S. Zorn** in high-energy physics; **Roger A. Bell**, **William K. Rose** and **Benjamin M. Zuckerman**, all in astronomy. **Thomas Dombek** and **Jerome Lynn** have been appointed assistant professors at the University.

**Ellen R. Domb**, a research associate at the University of Nebraska, has been appointed assistant professor of physics at Harvey Mudd College, Claremont, California.

The following changes in the Pennsylvania State University department of physics have been announced: **Howard Grotch** has been promoted from associate professor to professor, **Milton W. Cole**

(Brooklyn College of The CUNY) has been appointed associate professor and **Jeffrey Lannin** (University of Delaware) and **Toshio Sakurai** (Bell Laboratories) have been appointed assistant professors.

**Frederick E. Mills**, formerly of the accelerator section of Fermilab, has recently been appointed associate director of the Controlled Thermonuclear Research program at Argonne National Lab.

An applied photochemistry division has been formed at Los Alamos Scientific Laboratory; **C. Paul Robinson** has been named division leader and **Reed J. Jensen** has been chosen alternate division leader. The responsibilities of the division include laser isotope-separation research.

## Addenda

Several members of AIP member societies were omitted from the announcement of newly elected members of the National Academy of Engineering (June, page 62). They are **Alfred M. Freudenthal** (The George Washington University), **Dayton H. Clewell** (Mobil Oil Corp), **Julian D. Cole** (University of California, Los Angeles), **F. J. Corbató** (Massachusetts Institute of Technology), **Robert L. Johnson** (McDonnell Douglas Astronautics Co), **Gordon S. Kino** (Stanford University), **John D. MacKenzie** (UCLA), **Gordon E. Moore** (Intel Corp), **Johannes Weertman** (Northwestern University), **Marvin Camras** (IIT Research Institute), **Franklin S. Cooper** (Haskins Laboratories), **Ira Dyer** (MIT), **Henning von Gierke** (Aerospace Medical Research Laboratory) and

**Richard T. Whitcomb** (National Aeronautics and Space Administration, Langley Research Center).

**Hallowell Davis**, past president of the Acoustical Society of America (ASA) and professor emeritus of physiology at Washington University School of Medicine, was among the National Medal of Science recipients in 1975 (for other winners, see August, page 71). He studied at Harvard University and joined the



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department of physiology there in 1923. From 1927 to 1946 he served on the faculty of Harvard Medical School; he then accepted a post at Washington University School of Medicine. An active member of ASA, Davis served on the executive council, 1945-46, was president in 1953-54 and received the Acoustical Society's Gold Medal in 1965.

## obituary

### Markus Reiner

Markus Reiner, professor of mechanics at the Technion-Israel Institute of Technology, Haifa, died 25 April at the age of 90. He was a founder of the study of rheology and made many contributions to the field since its inception in 1928.

Reiner was born 5 January 1886 in Czernowitz, Austria-Hungary. He was awarded the ingenieur degree from the Technische Hochschule in Vienna in 1909 and a Doctor of Technology degree just before World War I. Following service as a lieutenant in the Austrian Army, he immigrated to Palestine in 1922. For 25 years, he was employed by the Department of Public Works in Jerusalem, which was then under British Mandate government. As chief construction engineer he worked on many interesting problems such as the structural support for the Church of the Holy Sepulchre and the restoration of Herod's irrigation channels, which are located in Jericho.



REINER

In 1926 he published a paper that attracted international interest—in it Reiner presented a theoretical treatment