

Harry Diamond Award goes to Arthur Guenther

Arthur H. Guenther has received the 1971 Harry Diamond Memorial Prize Award for his "contributions to high-power pulse techniques to simulate the environmental effects of nuclear weapons explosions." The award, established in 1949 to recognize technical contributions by government employees, consists of a certificate and \$500.

Guenther, scientific director and chief of the technology division of the Air Force weapons laboratory, is also adjunct professor of physics at the Air Force Institute of Technology and adjunct professor of electrical engineering at Texas Tech University. A specialist in nuclear-weapon effects simulation, optics, high-voltage technology and the dynamic response of materials, Guenther received his PhD degree in chemistry-physics from Pennsylvania State University in 1957.

Alfvén, Van Vleck among Franklin Institute medalists

Among the nine Franklin Institute medal awards for 1971, five were awarded for physics or physics-related work and one was presented for astronomy. The Franklin Medal, the highest award of the Franklin Institute, was won by Hannes Alfvén. Alfvén, of the department of applied physics and information at the University of California at La Jolla, was cited for his "outstanding pioneer work in establishing the field of magnetohydrodynamics, and for his many revolutionary contributions in that field to plasma physics, space physics and astrophysics."

The institute also presented two Elliot Cresson Medals this year; one to Paul J. Flory, chairman of the department of chemistry at Stanford University and the other to John H. Van Vleck, Hollis Professor emeritus of mathematics and natural philosophy in the Lyman Laboratory of Physics at Harvard University. The Cresson award, established in 1848 and the oldest award of the Franklin Institute, was awarded to Flory for his contributions to polymer science over the past 35 years and especially for his applications of "statistical mechanics and thermodynamics to calculating

the conformation of polymer molecules and the physical properties of polymer solutions and gels from basic molecular parameters." Van Vleck was acknowledged for his contributions to magnetism and other aspects of solid-state physics and for his training of physical scientists.

Other medals included the Longstreth medal to Harold G. Mead, of Hightstown, N. J., for his development of the immersion thermocouple, and the Stuart Ballantine medal to Zhores I. Alferov, of the A. F. Ioffe Physico-Technical Institute, Leningrad, USSR, for his research into the structure and properties of double-heterostructure injection lasers. The only astronomer to be recognized was Sir Martin Ryle of the Cavendish Laboratory, UK. Ryle received the Albert A. Michelson Medal for his development of techniques of radio interferometer measurement and in particular for his "techniques of aperture synthesis, for his preparation of charts of radio sources of greatly improved resolution and accuracy; and for his scientific leadership."

Robert Samuels wins ACS Section Award

Robert J. Samuels, research scientist for Hercules Inc and a member of the Society of Rheology, has been awarded the American Chemical Society Delaware Section award of \$500 for his paper "Quantitative Structural Characterization of the Mechanical Properties of Isotactic Polypropylene." In this paper Samuels developed the concept of

Paul F. Zweifel, professor of physics at Virginia Polytechnic Institute and State University, has been named a University Professor there; the title was created in 1969 to honor faculty members who achieved international distinction.

Promotions at West Virginia University include **Arnold Levine** to professor and **Carl A. Rotter** to associate professor. New members of the department of physics at the university are **Fred M. Goulding**, formerly

equivalent structural states and defined the structural states in measurable terms. This work makes possible quantitative characterization and prediction of structure-property relations for a crystalline polymer.

Since joining Hercules in 1960, Samuels has worked on polymer rheology, solid-state polymer physics, x-ray diffraction, sonic and optical techniques and theory of the problems of polymer morphology and deformation theory. As research scientist he is responsible for technical leadership in polymer physics and the coordination of activities in associated research areas.

Slawsky receives Navy Civil Service Award

Zaka I. Slawsky, chief of the physics research department at the Naval Ordnance Laboratory, has received the Navy Distinguished Civil Service Award. The Navy's highest civilian award was presented to Slawsky for his 28 years of outstanding research in the development and employment of naval ordnance.

Slawsky, who received his PhD in physics from the University of Michigan in 1938, was acknowledged for his accomplishments in antimine warfare, torpedo hydrodynamics, guided missiles, hypersonic shock tunnel and molecular physics. He was particularly cited for his "successful efforts to recruit and retain outstanding people in the field of research" and for "his concern for young scientists and the support and encouragement he has given them."

of the University of Michigan, and **Martin V. Ferer**, previously at the University of Illinois, as assistant professors.

Robert B. Newman, a visiting lecturer of acoustics at the Harvard Graduate School of Design, has been appointed professor of architectural technology there.

New staff members of Los Alamos Scientific Laboratory include **George A. Rinker Jr** to work in the physics