

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

Bypass the Beltway!



No pulleys, no belts...instead, Direct Drive! **EXTRACTORR™** Vacuum Pumps offer significant advances in design, performance, safety and operational security over conventional rotary vane mechanical vacuum pumps.

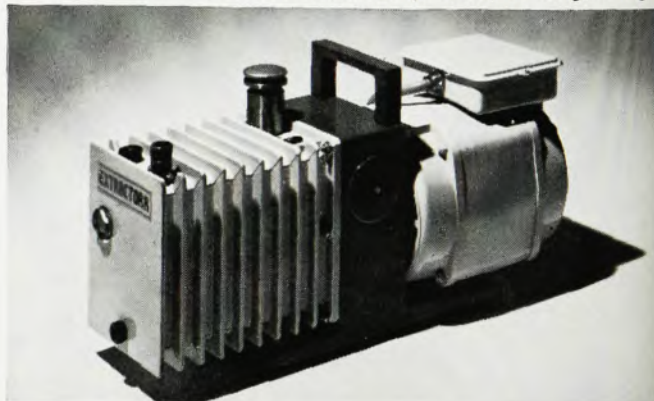
The direct coupling of the pump and motor offers an attractive, compact, and efficient alternative to old fashioned belt and pulley, or gear driven, mechanical pumps.

Improved operator safety, and operational security at no additional cost: safe, sure, direct drive between pump and motor: no moving belts, no rotating pulleys, no exposed moving parts. Automatic shift from 1st stage roughing to 2nd stage for ultimate vacuum.

Every model has "beltless" direct drive power transmission and a built-in positive anti-suckback valve which in the event of a power failure, seals the pump from atmosphere, eliminating all possibility of oil being drawn into the system.

Write or call High Voltage Engineering Corp.,
South Bedford Street, Burlington, Mass. 01803
Telephone: (617) 272-1313

EXTRACTORR™ Model HV-6, 5.8 cfm (6" wide, 18" long, 9" high)



HIGH VOLTAGE ENGINEERING

SEE US AT BOOTH #140-141
Circle No. 65 on Reader Service Card

we hear that

division; **Joseph F. Figueira** and **Erick L. Lindman Jr** to work in the testing division; **James E. Spencer** to work in the medium-energy physics division, and **Gerald N. Minerbo** to work in the theoretical design division.

Avco Everett Research Laboratory has promoted **George W. Sutton** to director of the laser development programs and **Jack D. Daugherty** to director of the laser research programs.

William B. Daniels, has been appointed to the UNIDEL-endowed chair of physics at the University of Delaware, where his program in high-pressure physics, formerly conducted at Princeton University, will be augmented by a laser light-scattering laboratory.

Medgar Evers College of the City University of New York has appointed **Mahendra P. Kawatra**, previously of Fordham University, as associate professor to start the program in physics there.

New members of the physics department at Texas A&M University are **John F. Reading**, from Northeastern University, as associate professor and **Ronald C. Kilpatrick**, from NASA and **Wayne M. Saslow**, from the University of Pittsburgh as assistant professors.

The new chairman of the department of physics at Southern Illinois University is **Thomas O. Baldwin**. **P. Narayanaswamy** has been promoted to associate professor.

The University of Southwestern Louisiana has named **S. W. Cosper** of the physics department dean of the college of liberal arts. **John R. Meriwether** has been appointed chairman of the physics department.

Ralph C. Holmer, vice-president of Kennecott Exploration Inc, has been appointed professor of geophysics at the Colorado School of Mines, effective 1 January 1972, and will be head of the department starting with the fall semester next year.

Bryan L. Isacks, a research geophysicist in Columbia University's Lamont-Doherty geological observatory, has been named associate professor of geological sciences at Cornell University.

Yervant Terzian, assistant professor of astronomy at Cornell University and assistant director of the university's Center for Radiophysics and Space Research, has been promoted to associate professor there.

Joining the staff of Dartmouth College as assistant professor of physics and astronomy is **Walter E. Lawrence**.

obituaries

Lester H. Germer

Lester H. Germer died of natural causes while rock climbing on the Shawangunk cliffs, near Gardiner, N. Y., on Sunday, 3 October. Even though he officially retired from Bell Laboratories in 1961, Germer never made concessions to his chronological age, and continued an active surface-research program at Cornell University and an active physical program of rock climbing, mountain climbing and hiking. His death occurred while negotiating a series of strenuous moves to get past an overhang, half way up the last climb of the weekend. This weekend of climbing followed a lecture on surfaces at Picatinny Arsenal on Friday and was to precede a week of research at Ithaca.

Germer was an exciting personality, who seemed to be continuously "high" on life, and enjoyed interacting with young people. He introduced a countless number of people to the excitement of rock climbing and passed on his ex-

citement with science to many young scientists at Bell Labs, Cornell University and at technical meetings.

While his name is primarily associated with the 1927 Davisson-Germer experiment, which established the wave nature of the properties of the electron, he is also the recognized father of the present low-energy electron diffraction equipment, which is being used as a part of most clean surface experiments in the world today. In 1960, he and his coworkers, C. Hartman and E. J. Scheibner, perfected equipment that permitted the visual display of low-energy (0-1000 eV) electron diffraction patterns directly on a fluorescent screen. He publicized the technique in stimulating lectures and papers and was directly responsible for urging the commercial manufacture of easily used equipment. His impact on the surface community is evidenced by the great number of papers that are published and presented at meetings each year on

KLC

your laser-age optical source for...



For complete details, ask for:

	Bulletin	Description
☐	B-71	Glan-Thompson Prism Polarizers
☐	C-71	Glan-Taylor Prism Polarizers
☐	NI-71	Glan-Laser Prism Polarizers
☐	G-71	Wave Plate Retarders
☐	A-72	Infrared Laser Optics and Glass Optical Components. For Lab and Research
☐	S-71	Cylindrical Lenses
☐	E-72	Educational Polarizing Optics
☐	D-71	Optical Design
☐	C-72	Optical Attenuators

Write for brochures of your choice or send details of your requirements.

KARL LAMBRECHT CORP.
4316 N. Lincoln Ave., Chicago, Ill. 60618
(312) 472-5442-3 Telex: 25-4771

SEE US AT BOOTH # 407

Circle No. 66 on Reader Service Card