WE HEAR THAT . . .

NAS Elects Fourteen Members, E.R. Piore Becomes Treasurer

At its 105th annual meeting in Washington, the National Academy of Sciences elected **Emanuel R. Piore,** vice-president and chief scientist of the International Business Machines Corp, to a four-year term as treasurer of the academy. He has filled this position since the death of Lloyd V. Berkner.

New members of the academy include **Thomas Gold,** Cornell University, **Bart J. Bok,** University of Arizona, **Louis G. Henyey,** University of California, Berkeley, **W. Conyers Herring** and **Rudolph Kompfner** Bell Telephone Laboratories, **Henry Primakoff,** University of Pennsylvania.

Also named were **Leo J. Rainwater,** Columbia University, **John Reynolds,** University of California, Berkeley, **Stuart A. Rice** and **Valentine L. Telegdi,** University of Chicago and **David Turnbull,** Harvard University.

New foreign members include **Ragnar Granit,** Karolinska Institute, Stockholm, **Gerhard Herzberg,** National Research Council of Canada and **J. Tuzo Wilson,** University of Toronto.

International Telephone and Telegraph Corp has named **Robert L. Hirsch** director of the nuclear-energy and plasma-physics laboratory.

New appointments at Virginia Polytechnic Institute are **Silverio Almeida** from the University of Cambridge, **Marvin Blecher** and **John Ficenec** from the University of Illinois, and **Richard Powers** from the University of Chicago as assistant professors.

John W. Leech has been appointed chairman of the physics department at the University of Waterloo, Ontario. He was formerly with Queen Mary College, London.

Peter Haasen, professor at the University of Göttingen, Germany, has been elected dean of the faculty of mathematics and natural sciences.

Henry Leidheiser Jr, former director of the Virginia Institute for Scientific Research, has been named director of the Center for Surface and Coatings Research at Lehigh University.

David H. Douglass Jr, formerly of the University of Chicago, has become professor at the University of Rochester.

Charles A. Whitney has become professor of astronomy at Harvard University. He will continue as a physicist at the Smithsonian Astrophysical Observatory.

Louis B. Werner, general manager of the Palo Alto, California Laboratories of Isotopes, has been appointed vice-president of the company.

New fellows of the Optical Society of America are Myron J. Block, Darrell E. Burch, John G. Conway, H.M.A. El Sum, James L. Harris, Myron A. Jeppesen, Adolph W. Lohmann, W. Mandler and Pol J.C.M. Mollett.

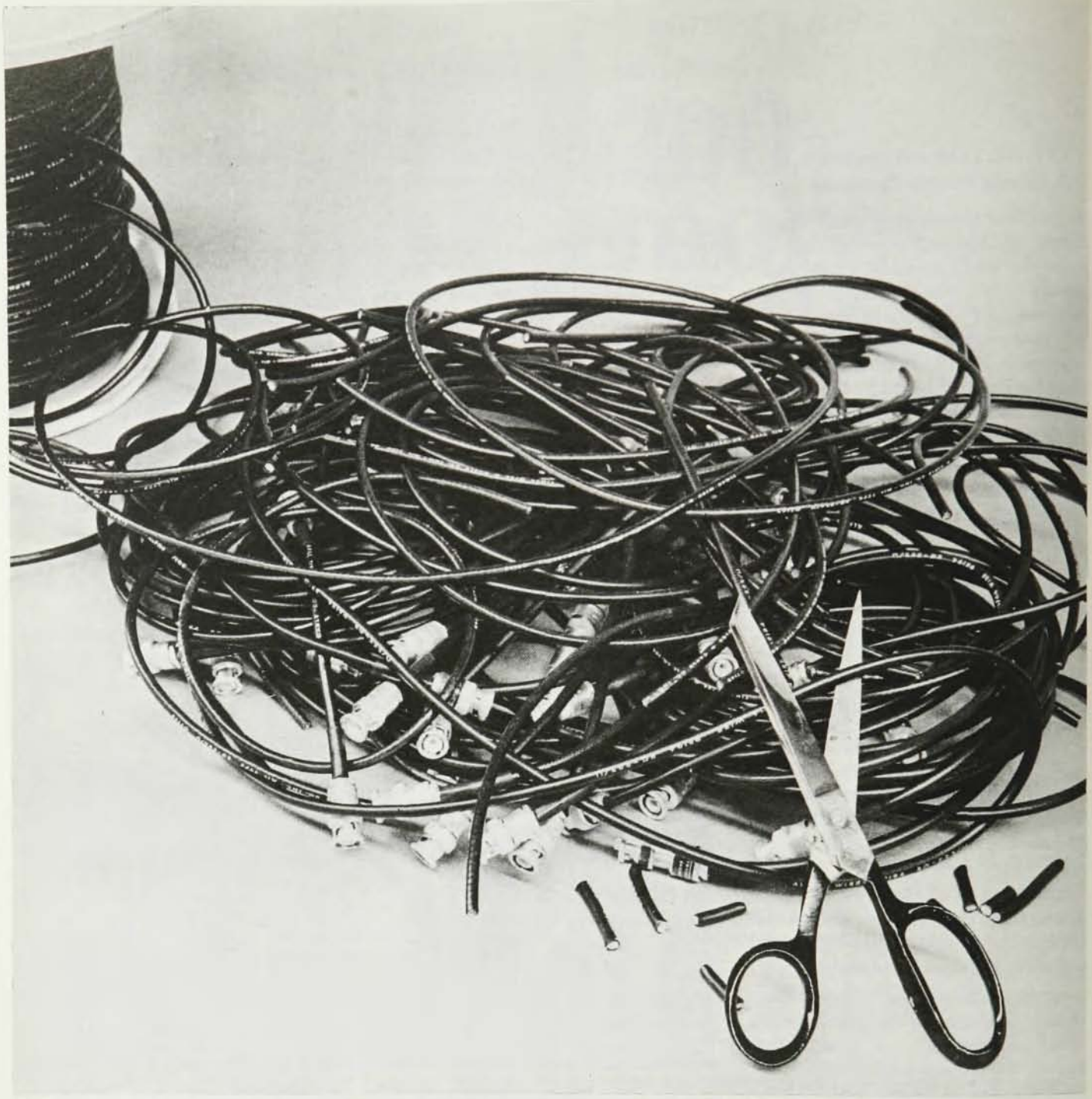
Also named as fellows are Sergio P.S. Porto, Gerald M. Rassweiler, Paul L. Richards, and James A.R. Samson.

New promotions at Princeton University include **Robert E. Danielson** to professor and **Jeremiah P. Ostriker** to associate professor of astrophysical sciences. In the physics department **Philip J.E. Peebles** and **David T. Wilkinson** have become associate professors, and **George F. Bertsch, Norman Christ, Michael N. Kreisler, Richard E. Mischke** and **Olav Redi** have become assistant professors.

Henry J. Smith has been appointed deputy associate administrator for space science and applications of the National Aeronautics and Space Administration.

At the University of Maryland **Joseph T. Vanderslice** was appointed head of the chemistry department and will continue as director of the Institute for Molecular Physics at the university. New appointments within the institute

FORMER STUDENTS AND COLLEAGUES honored Gregory Breit, Donner Professor of Physics at Yale, on his retirement after 45 years, with a symposium and banquet. Pictured in top photo (from left) are Gerald E. Brown, Princeton; Raymond G. Herb, Wisconsin; Breit; Vernon W. Hughes, Yale; and Merle A. Tuve, National Academy of Sciences and Carnegie Institute. In lower photo (from left) are D. Allan Bromley, Yale; Hans A. Bethe, Cornell; Breit; McAllister H. Hull, Oregon State; and Eugene P. Wigner, Princeton. Breit is beginning a new career at SUNY in Buffalo.



Cutting delay lines won't cut delays

Unless you are a "shear" genius, how accurate can a cutup be?

Once upon a time, delay lines were made by cutting up every cable in sight. The progressively improved accuracy of the delay cable would certainly be accompanied by eyestrain and frustration — after exceeding minimum delay length. However, it behooved the cutter to continue the process of trial and error and error and error . . .

Don't suffer the rigors of this archaic method any longer. Nanosecond Systems, Inc. makes a "second generation" variable delay line with two complementary outputs. Its resettability of ± 5 ps provides plenty of sensitivity for fast nuclear physics laboratories and for a host of other high frequency applications.

The Model 162 Variable Delay Line Pulse Splitter has a continuously adjustable delay from 0 to 50 ns by turning a calibrated dial. The two outputs are virtually non-reflecting, and their amplitudes are each half the input signal amplitude.

Avoid useless delays. Write or phone us today for more information.

NANOSECOND SYSTEMS, INC.

Instrumentation Division, 176 Linwood Ave., Fairfield, Conn. 06430, Telephone (203)255-1008

are **William Benedict**, formerly of the Johns Hopkins University, as professor, and **Olav Verbeke**, formerly at Louvain, as assistant professor; both are National Science Foundation fellows. **Jan Sengers**, from the National Bureau of Standards, was appointed associate professor at the institute.


SACHS

Robert G. Sachs has resigned as associate laboratory director for high-energy physics at Argonne National Laboratory to become director of the Enrico Fermi Institute for Nuclear Studies at the University of Chicago, effective 1 Oct. He will replace **Roger H. Hildebrand**, who will become a Guggenheim Memorial fellow at Berkeley for the following year.

Robert Fleisher, deputy head of the Office of International Science Activities at the National Science Foundation, has become head of the astronomy section in the division of mathematical and physical sciences. **Gerard F.W. Mulders**, head of the astronomy section, has been appointed program coördinator for National Astronomical Research Centers.

Stuart Hauser, formerly president of Electro-Optical Instruments, has become manager of the new administration and planning department at Cary Instruments.

Richard A. Swalin has been appointed associate dean of the Institute of Technology of the University of Minnesota. He was formerly professor and head of the school of mineral and metallurgical engineering at the university.

The Naval Research Laboratory has named **Jerome Karle** to the new chair of Science for the Structure of Matter.


FAWCETT

Battelle Memorial Institute has appointed **Sherwood L. Fawcett** president. In 1964 he was chosen to establish the Pacific Northwest Laboratories, and served as director there until he became executive vice-president of the institute in 1967.

Robert C. Amme has been promoted to professor at the University of Denver and senior research associate at the Denver Research Institute. Other promotions are **Alwyn J. van der Merwe** to professor and **Elizabeth R. Tuttle** to associate professor. **Juan G. Roederer** has been named director of the new center for study of the planetary radiation environment.

At the David Sarnoff Research Center in Princeton **Ralph E. Simon** has become director of the RCA conversion devices laboratory.

OSA Presents Adolph Lomb Medal to Douglas Sinclair

The Optical Society of America has presented the 1968 Adolph Lomb Medal to Douglas C. Sinclair, manager of laser-product development at Spectra-Physics Corp. Awarded biennially to a person under 30 who shows unusual promise in optics, the award recognizes Sinclair's contributions to the development of gas lasers.

As an undergraduate at MIT he developed an interest in optics through contact with Harold Edgerton and Arthur Hardy. In 1963 he received his PhD at the University of Rochester Institute of Optics, where he studied the effect of design parameters on the power output of helium–neon gas lasers in single-mode operation. During this research Sinclair constructed a large number of gas lasers and was probably the first to develop a visible gas laser outside of an industrial laboratory. In addition to his primary concern for improving the laser, he has also taken advantage of its properties to study such problems as the chromatic aberration of the eye and the measurement of the velocity of light.

Emmanuel Papadakis Wins Acoustical Society Award

Emmanuel P. Papadakis of Bell Labs, Allentown, Pa., has won the Biennial Award of the Acoustical Society of America for his contributions to the understanding of elastic-wave phenomena in crystalline and polycrystalline solids. Working with pulse-echo techniques, he became concerned with the corrections for diffraction effects on pulse-echo measurements. He recognized that ultrasonic propagation in steel was strongly influenced not only by grain size but also by the structure-induced anisotropy—known as texture or preferred orientation. He was among the first to demonstrate that polycrystalline metals exhibit crystalline anisotropy effects owing to their processing history.

Papadakis made the first observation of elastic double refraction in both single crystals and worked metals. This study led to consideration of dif-


PAPADAKIS

fraction effects in elastically anisotropic materials, from which he developed nondestructive tests for proper heat treatment of steel. At Bell Labs Papadakis has been studying the variations of ultrasonic velocity in fused quartz and silica and the correlation of these effects with optical inhomogeneities.

AAPT Honors Alan Holden With R. A. Millikan Award

In recognition of his numerous, valuable and imaginative contributions to the work of the teaching community, the American Association of Physics Teachers conferred the 1968 Robert A. Millikan Lecture Award on Alan M. Holden at its meeting last month. The Bell Laboratories scientist delivered the Millikan Lecture entitled, "Artistic Invitations to the Study of Physics," as part of the award ceremony.

Holden's research contributions include basic investigations of piezoelectricity, invention of methods of crystal growth that have achieved world-wide use, studies of ferroelectricity, investigation of electron magnetic resonance in organic free radicals and in paramagnetic ions dispersed in crystals; his research even extends (in collaboration with Charles H. Townes) to some of the early work on microwave absorption in dilute gases.

His skill as a teacher and his deep commitment to education have led him into a variety of educational activities. In collaboration with the