

in June. **William L. Kehl** of Gulf Research and Development Co starts his second three-year term as secretary.

At New York Institute of Technology **Miriam Sidran**, formerly with the research department at Grumman Aircraft, has become associate professor and deputy department chairman, and **Robert Small**, also from Grumman, has become associate professor. New assistant professors are **Jack Lowenthal** from Upsala College, **James Kerwin** from St John's and **Lester Seigel** from Columbia.

Karl G. Malmfors, former head of the Research Institute for Physics at Stockholm, is National Science Foundation senior scientist and professor at Kansas State University. **Donald Lang** of Harwell and **Arie van Wijngaarden** of the University of Windsor have been named visiting associate professors.

Indiana State University has appointed **Torsten Alväger** as associate professor. He was formerly with the University of Stockholm and the Princeton-Pennsylvania Accelerator at Princeton.

Frank Verbrugge, professor of physics and acting dean of the University of Minnesota Institute of Technology, has become director of the university computer services. In this position he will have responsibility for the general-purpose computing facilities. **Warren B. Cheston**, director of the university space-science center, was named dean of the Institute of Technology.

Stevens Institute of Technology has named **Eugene T. Booth** professor and dean-designate of graduate studies. Formerly scientific director and vice-president of Laser Inc, he will become dean in June. Other promotions include **Franklin Pollock** to professor and **Menasha Tausner** to associate professor.

Stanislaw M. Ulam, head of the department of mathematics at the University of Colorado, has been given a joint appointment as professor of biophysics in the CU School of Medicine.

Among the recipients of the National Medals of Science presented by President Johnson were **Kenneth S. Cole**, senior biophysicist at the National Institutes of Health, **Jesse W. Beams**, professor at the University of Virginia, and **Gregory Breit**, professor at Yale.

Sanford B. Newman has become chief of the materials-evaluation laboratory division at the National Bureau of Standards. **Bascom W. Birmingham** has been appointed executive officer of the NBS Boulder Laboratories. He will continue as chief of the cryogenics division.

Philco-Ford has made **John R. Welty** general manager of the microelectronics division and a vice-president of the corporation. Welty was formerly a vice-president of Motorola.

At Lake Forrest College **Tung Hon Jeong** has been promoted to associate professor.

Johnson Wins Armstrong Medal For 50 Years of Radio Study

The Radio Club of America has presented the Edwin H. Armstrong medal to John B. Johnson. A memorial to the inventor of frequency modulation and superheterodyne circuits, the award is presented to persons contributing outstandingly to the art and science of radio.

Johnson, head of the instrument division at Thomas A. Edison Industries, won the medal in recognition of his discovery of the electromotive force due to thermal agitation in conductors—referred to by communications engineers as the "Johnson noise"—and for his productive career of more than 50 years. Active in early research on cathode-ray tubes, Johnson constructed the first modern oscilloscope tube. After finishing his studies at the University of North Dakota and Yale, he was associated with the Western Electric Co and Bell Laboratories for more than 25 years.

Watumull Foundation Award Conferred on N. S. Kapany

A pioneer in fiber optics, **Narinder S. Kapany** has won the first Distinguished Achievement Award of the Watumull Foundation. The award, presented by the Prime Minister of India, recognizes Kapany's many research contributions that have had wide applications in optics. Kapany, president and director of research at Optics Technology,



KAPANY

has contributed to lens design, spectroscopy, hypersonic reconnaissance and lunar-probe instrumentation. He has applied fiber-optic technology to television, astronomy, refractometry and nuclear-particle tracking.

The Watumull Foundation was established in 1942 with the objective of promoting better understanding between India and the US, increasing India's national efficiency and supporting institutions in Hawaii.

Panetti Engineering Prize Goes to Clifford Truesdell

The Academy of Science of Turin, Italy, has awarded the Modesto Panetti Prize in engineering to Clifford Truesdell, III. The prize carries a cash award of \$2500 and a gold medallion. Truesdell, professor at Johns Hopkins, is known for his work in rational mechanics.

IEEE Presents Medal of Honor to Gordon K. Teal

The principal award of the Institute of Electrical and Electronics Engineers was presented to Gordon K. Teal, vice president and director of the science and technology office at Texas Instruments Inc. Teal received the IEEE Medal of Honor for his contributions to single-crystal germanium and silicon technology and the single-crystal growth-junction transistor.

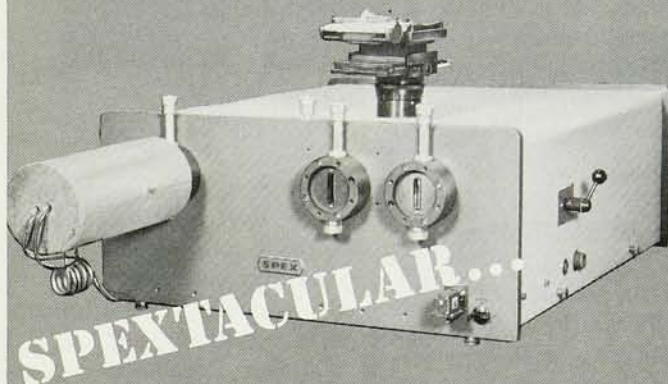
Bloom Gets Steacie Prize For Molecular-Physics Work

For his important work in molecular physics, Myer Bloom has received the 1967 Steacie Prize. Awarded annually for outstanding scientific work that has some connection with the Canadian scene, the prize consists of a \$1500 honorarium; it is named after the late Edgar W. R. Steacie, who was the president of the National Research



VERBRUGGE

Spex Double Monochromator



for RAMAN SPECTROSCOPY and SPECTRORADIOMETRY

Any way you put it, Indisputably Unmatched:

As Radiometrists would say —

SPECTRAL PURITY—100,000-fold improvement over that of a single instrument.

OR

As Raman Spectroscopists would say —

SCATTERED LIGHT — 10^{-8} the intensity of your laser line at 25 cm^{-1} from it, 10^{-11} beyond 60 cm^{-1} .

AT YOUR OPTION:

WAVELENGTH COVERAGE—1800A to >100 microns.

HOLDING THAT LINE:

TRACKING ACCURACY— $\pm 0.1\text{A}$ over 5000A.

KEEPING IN SHAPE:

RESOLUTION—0.08A half-width with 1200 g/mm grating.

HANDY FOR BACKGROUND WEEDING:

SCANNING—variable speed down to 0.01A/mm.

GIVING YOU ALL WE HAVE:

THROUGHPUT—8 mW/100A at 3000A with 5000-W Xe lamp.

SPEX

INDUSTRIES, INC.

P.O. BOX 798, METUCHEN, N. J. 08840
(201)-549-7144

- PHOTOELECTRONICS
- ELECTRON & ION PHYSICS
- SPACE INSTRUMENTATION

PHYSICISTS PHYSICAL CHEMISTS ELECTRON TUBE SPECIALISTS

for expansion of a laboratory concerned with the development of new techniques and research leading to new devices.

The nature of the problems solved by this laboratory varies widely, so that the principal qualifications required are an inquiring intelligence and a sound background in physics, electrical engineering or physical chemistry. Positions are available both for recent graduates at all academic levels, and experienced people capable of accepting primary responsibility for specific programs. Present programs include activities in the following areas:

- SPACE INSTRUMENTS
- OPTICS
- PHOTOELECTRON EMISSION
- PHOTOMULTIPLIERS
- SIGNAL GENERATING IMAGE TUBES
- SURFACE PHYSICS
- GLASS TECHNOLOGY
- MASS SPECTROMETRY

The work is stimulating and satisfying and located in comfortable and pleasant surroundings in suburban Detroit.

Excellent opportunities for academic advancement.

Write or wire A. Capsalis

Research Laboratories

The Bendix Corporation

Southfield, Michigan 48075

Bendix Research Laboratories

An equal opportunity employer

Council of Canada from 1952 to 1962.

Bloom, professor at the University of British Columbia, has contributed significantly to both experimental and theoretical aspects of nuclear magnetic

resonance. He has made detailed studies of molecular relaxation in gaseous liquid and crystalline forms of substances such as hydrogen and methane and obtained information about molecular reorientation in crystals. A year ago in collaboration with other re-

searchers Bloom observed the resonant deflection of a beam of neutral atoms for the first time. This achievement makes it possible to do Stern-Gerlach experiments with charged particles such as molecular ions and to measure their low energy levels precisely.

Wolfgang Finkelburg, Director of Siemens AG

Honorarprofessor at the University of Erlangen-Nürnberg Wolfgang Finkelburg died on 7 Nov. at the age of 63.

Finkelburg, who was born in Bonn in 1905, studied at the universities of Tübingen and Bonn, where he took his PhD in 1928. After qualifying as a lecturer at the Karlsruhe Technische Hochschule he took up duties there one year later. In 1938 he was invited to join the staff of the Darmstadt Technische Hochschule, and four years later he became an associate professor and head of the physics institute at the University of Strasbourg. After the war Finkelburg spent seven years in the US, where he was employed as a university lecturer and scientific consultant. Upon his return to Germany in 1952, he joined the Siemens Co as head of the newly founded department for reactor research and in 1963 became director of Siemens-Schuckertwerke AG.

Besides the positions he occupied at Siemens and the University of Erlangen-Nürnberg, Finkelburg was a member of nine German and foreign physical societies; he was also president—and later vice-president—of the Deutsche Physikalische Gesellschaft.

Head of Applied Mathematics Group at Brown, Rohn Truell

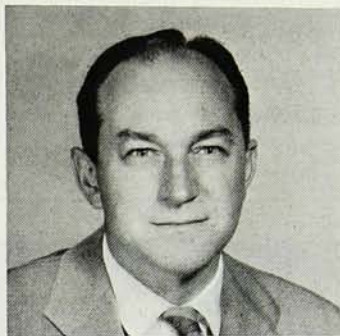
Rohn Truell, fellow of the American Physical Society, the Acoustical Society of America and professor of applied mathematics at Brown University, died of a stroke on 10 Jan.

Truell was born in Washington, D. C. on 6 April 1913, received his BS in engineering at Lehigh University in 1935 and his PhD in physics at Cornell in 1941. During the war he worked at RCA Laboratories, Princeton and Stromberg-Carlson. He came to Brown as an assistant professor in 1946.

In 1948, he organized the metals-research laboratory at Brown. Here he developed and refined pulse-echo tech-

niques for studying properties of metals with ultrasound, especially in radiation damage, magnetoelastic losses, dislocations, thermoelasticity and phonon-phonon interaction.

This laboratory, which established a wide reputation in solid-state physics, served as an interdisciplinary group among physics, engineering and applied mathematics. In 1951 Truell became professor of applied mathematics and in 1963 chairman of ap-



TRUELL

plied mathematics. At his death he was chairman of the physical-sciences council at Brown.

Truell was also a senior member of Institute of Electrical and Electronics Engineers, and held memberships in the American Mathematical Society and the American Association for the Advancement of Science. He had served as a member of the Rhode Island Atomic Energy Commission and was a trustee of Roger Williams General Hospital.

ROBERT T. BEYER
Brown University

Samuel Alexander, NBS Senior Research Fellow

A pioneer in the automatic digital computer field, Samuel N. Alexander, died on 9 Dec. at the age of 57. He was born in Wharton, Texas and he received physics and electrical engineering degrees from the University of Oklahoma in 1931 and from MIT in 1933. His graduate study at MIT ended when he became a physicist for

the Simplex Wire and Cable Corp in 1935. In 1940 Alexander went to Washington and served as a physicist for the Navy Department, and from 1943 to 1946 he was senior project engineer for the Bendix Aviation Corp.

After joining the National Bureau of Standards in 1946 as chief of the electrical components laboratory, he was assigned the responsibility of organizing a group within NBS to conduct a research and development program for the US Army in electronic components suitable for use in automatic digital computers. Under Alexander's direction this group developed SEAC, one of the first modern electronic computers. He then proceeded to establish the first government laboratory entirely oriented to the development of automatic data-processing devices and their application to scientific and information handling problems. The NBS computer laboratory became the central source of technical assistance to Federal agencies seeking advice on the application of ADP systems to their particular problems.

William E. Bennett Developed Nuclear-Teaching Laboratory

William Ernest Bennett, professor at the State University in Buffalo since 1960, died on 12 Jan. in Buffalo General Hospital. He was born in Sutton's Bay, Mich., in 1907. After receiving his master's degree from Queen's University, Kingston, Ont. in 1934, he studied for his doctorate at Cambridge University.

In 1937 Bennett returned to the US and served as an instructor at Rice Institute in Texas until 1946 and was a Manhattan Project scientist in 1941-42. He was professor at Illinois Institute of Technology from 1947 until going to Buffalo. Under grants from the National Science Foundation and the Atomic Energy Commission he had done research at Buffalo on accelerators and the development of a nuclear-teaching laboratory. He was acting department chairman in 1963-64. □