

OBITUARIES

Georg von Hevesy

The winner of the Nobel Prize in chemistry for 1943, Georg von Hevesy, died on 5 July in Freiburg, West Germany, at the age of 80. He won the prize for his pioneer work in the use of radioactive tracers.

Von Hevesy was born in Budapest and attended the Universities of Budapest and Freiburg. He worked with Fritz Haber for a time, and then



MC GRAW-HILL BOOK CO., C 1966
MODERN MEN OF SCIENCE

VON HEVESY

took a fellowship to study at Manchester with Ernest Rutherford. After 1912, he served on the faculties at Budapest, Copenhagen and Freiburg. Although he is best remembered for his work with radioactive isotopes, von Hevesy's first contribution to science was in the declining field of "new elements." By 1923, the year he isolated number 72, the periodic table was firmly based on a theoretical and experimental structure provided by Niels Bohr and the x-ray studies of Henry Moseley. Bohr suggested that the "hole" in the table might be filled by investigating the ores containing zirconium, just above 72 in the periodic table. Von Hevesy and a colleague found hafnium in January of 1923, and its uniqueness was quickly verified by using Moseley's x-ray analysis techniques. In the same year,

he performed his first application of radioactive tracers, which involved treating plants with an isotope of lead and then observing the subsequent absorption and distribution. The work caused no great stir at the time; more than 20 years and World War II passed before its immense importance to the life and other sciences was fully recognized. His Nobel Prize came while he was living as a refugee professor at the University of Stockholm. He was awarded the Atoms for Peace Prize in 1959.

Robert Methuen Petrie

The director of Canada's Dominion Astrophysical Observatory, Robert Petrie, died on 8 April, shortly before his 60th birthday. He had been associated with the observatory for more than 40 years.

Petrie came to Victoria, B.C., from St Andrews, Scotland, as a young boy. After undergraduate studies at the University of British Columbia, he went to the University of Michigan, where he received his doctorate in 1932. He served as an instructor in astronomy at Michigan until 1935 and then returned to Victoria to become astronomer at the Dominion Observatory. In 1951 he was appointed director of the observatory. While still a high school student, Petrie was encouraged by John Plaskett to help with the work at the still-young observatory, and like Plaskett, his work came to center around determination of the radial velocities of stars for the study of stellar motions. His early research papers show an interest in instrumentation and he pioneered the development of advanced equipment at Victoria. Much of his work involved the spectrophotometry of *B* stars, and one 25-year program at the observatory shows that their average radial velocities at various galactic longitudes are in good agreement with Jan Oort's theory of galactic rotation.

Petrie was a member of the American Astronomical Society and the Royal Astronomical Society of Canada.

MATERIALS RESEARCH

Are you interested in conventional and unconventional methods of measuring fractional micro inches?

Are you interested in the fundamentals and applications of precision mechanical properties and dimensional instability?

Do you have an MS or PhD (or equivalent) in Metallurgy or Physics?

An opening at Battelle with excellent growth opportunity exists in this expanding area.

Write to Mr. L. G. Hill

BATTELLE

MEMORIAL INSTITUTE

COLUMBUS LABORATORIES

505 King Avenue

Columbus, Ohio 43201

Several opportunities exist in other fields at Battelle. Write and tell us of your qualifications.

An Equal Opportunity Employer

SOLID STATE PHYSICIST PHYSICAL METALLURGIST

The Corporate Applied Research Group of Globe-Union Inc. has two vacancies at the research scientist level. This group does materials research in areas related to divisional product lines: switches, capacitors, potentiometers, integrated circuits and electro-chemical batteries.

These research positions will be concerned with the broad areas of materials science dealing with metals and non-metals such as plastics, ceramics and glasses. Of particular interest will be the electronic and electro-chemical characteristics of these materials.

We are interested in candidates with an advanced degree and an interest in materials research related to electronic devices and electro-chemical systems.

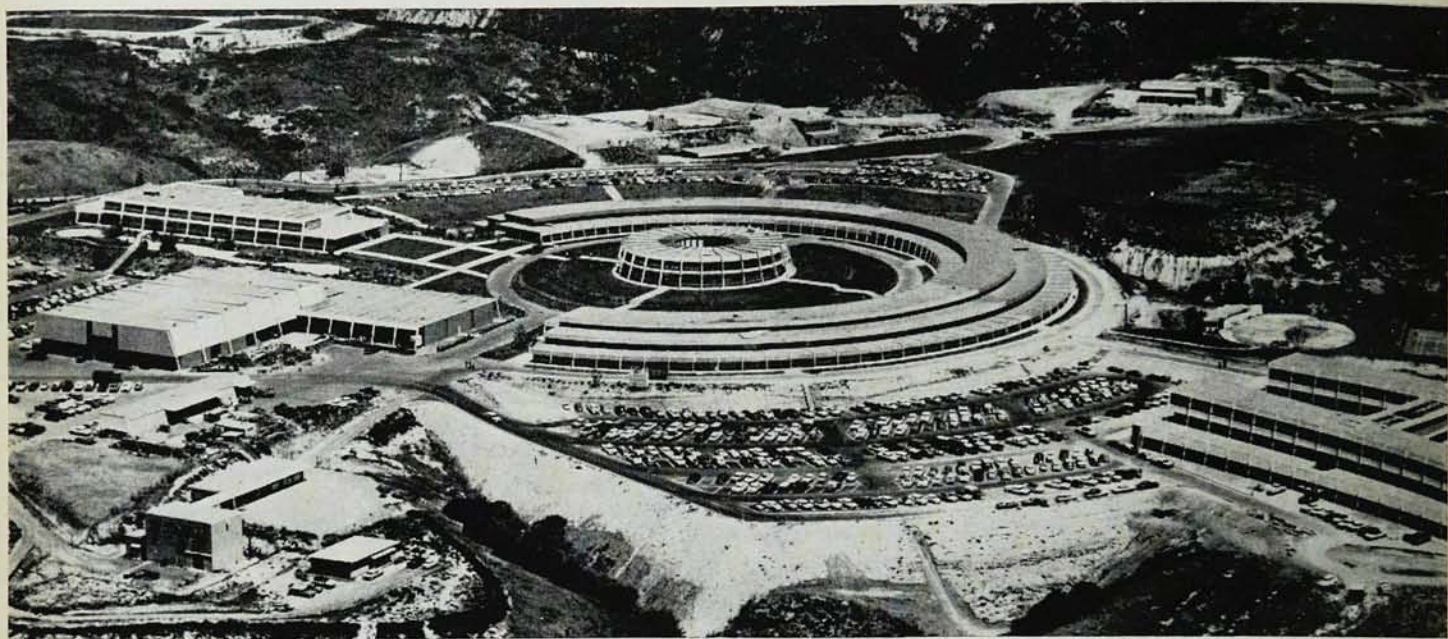
Here is an opportunity to work in an all-new facility on Milwaukee's beautiful north side. Your inquiry, with resume, will receive our most careful and prompt attention. Write E. Boelk, Professional Placement.

GLOBE- UNION INC.

900 E. Keefe Avenue Milwaukee, Wisconsin 53212

"An Equal Opportunity Employer"

Special nuclear effects programs



If your primary interest is high energy phenomena . . . particularly those associated with nuclear effects or space systems . . . you'll be interested in the Special Nuclear Effects Laboratory at General Atomic Division of General Dynamics in San Diego, California.

The laboratory was established to conduct advanced, integrated investigations in these areas. It is staffed with physicists, chemists, mathematicians and engineers who possess a broad background in theoretical, experimental and applied programs. More are needed. Why not investigate this opportunity?

Current activities include analytical, computational and experimental studies of:
Radiative and thermodynamic properties • Hypervelocity impact phenomena •
Hydrodynamic and radiative energy transport • Nuclear energy characteristics and
interaction phenomena • Atomic and molecular scattering phenomena in gases •
High temperature material properties • Effects of nuclear explosions on systems •
Radiation effects on electronic components and systems •
Non-equilibrium processes in ionized gases.

Immediate openings include:

PHYSICIST Theoretical physicist to direct work on nuclear testing problems. Should have experience in computational methods in hydrodynamics, radiation flow and heat transfer. Underground nuclear test experience desirable. PhD or equivalent.

PHYSICIST Theoretical physicist to direct the analysis of radiation interaction effects in material media. Should have experience or education in computational methods, hydrodynamics, heat transfer or related fields and interest in applied physics research. PhD or equivalent.

PHYSICIST-PROGRAMMER Experienced programmer with good physics background to develop a computer program to solve coupled equations of fluid dynamics, radiation transport, and vaporization in two spatial dimensions. Should be experienced in development of large complex computer programs and be experienced with automatic plotting routines. MA/MS physics or math.

PHYSICIST OR PHYSICAL CHEMIST To formulate and perform calculations of radiative properties of heated molecular and atomic systems and of equilibrium and non-equilibrium thermodynamic properties of molecular and atomic systems at high temperatures over a wide density range. PhD or equivalent.

ANALYTICAL ENGINEER Responsible for the correlation of information from experiments, from hydrodynamic code development and from analysis. Should be a researcher with broad array of talents and interests and a good knowledge of the fundamentals of quantum mechanics. Should be PhD or equivalent with courses in fluid and solid mechanics and knowledge of classical physics.

ANALYTICAL ENGINEER To work in the areas of hydrodynamics, plastic flow, and continuum mechanics. Should have a background in fluid mechanics, plastic flow, and plasma with heavy analytical characteristics. Will be required to work in a small group devoted to research in hydro codes. Should have PhD degree or equivalent.

PHYSICIST To assist in radiation effects experiments involving electronics, vacuum techniques, and radiation effects. BS/MS Physics and 2 years' experience in laboratory procedures. Should be thoroughly familiar with standard experimental equipment including electronic apparatus.

RADIATION EFFECTS EXPERIMENTALIST To assist in determining radiation vulnerability and developing techniques for solid state circuits and systems. MS in physics, electronics, or electrical engineering. Must have broad experience in solid state circuitry including circuit design and analysis.

If these kinds of challenging programs interest you, send your resume in confidence to Manager of Placement, Dept. 156, General Atomic Division, P.O. Box 608, San Diego, California 92112. All applicants for the above positions must have secret clearance or be clearable. An equal opportunity employer.

GENERAL DYNAMICS
General Atomic Division

da, and a fellow of the Royal Society of Canada and the Royal Astronomical Society.

Louise Sherwood McDowell

A former chairman of the physics department at Wellesley College, Louise McDowell, died on 6 July at her home in Wellesley. She had served continuously on the Wellesley faculty from 1909 until her retirement in 1945.

Miss McDowell was born in 1876 in Wayne, New York. She received her BA from Wellesley in 1898 and over the next several years obtained an MA and a PhD from Cornell University while working intermittently as a secondary-school teacher. Four years after her return to Wellesley, she was appointed professor of physics and chairman of the department. She retired in 1945 as professor emeritus. A fellow of the American Physical Society and the American Association for the Advancement of Science, she was also a member of the Optical Society of America and served as vice president (1944) of the American Association of Physics Teachers.

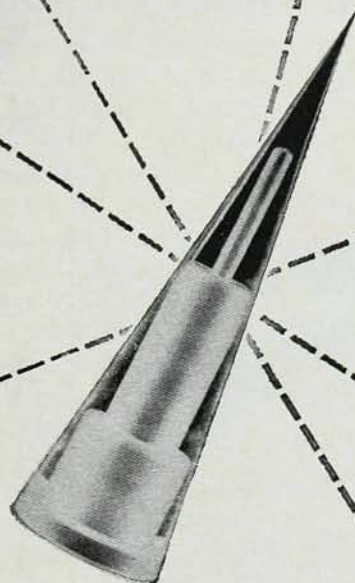
Francis Michael Wiener

Bolt, Beranek and Newman's principal scientist and manager of its psychoacoustics group, Francis Wiener, died on 22 March. He was 55 years old.

Born in Prague and a graduate of its Technical University, Wiener came to the United States in the 1930's. He held Eveleth and McKay scholarships at Harvard University between 1939 and 1941, the year he was awarded his doctorate, and worked in the University's electro-acoustic and psychoacoustic laboratories until 1946. For the next six years he did research in speech, hearing and applied acoustics at Bell Telephone Laboratories and after 1948 also taught at Brooklyn Polytechnic Institute. In 1952, he was appointed head of the engineering section at Spencer-Kennedy Laboratories in Cambridge, Mass. He joined Bolt, Beranek and Newman in 1954.

Wiener was a fellow of the Acoustical Society of America and the Institute of Electrical and Electronics Engineers. □

From every point of view . . .



it's

precision

optical

fabrication

Bring your optical fabrication requirements to Valpey . . . laser rods . . . infrared optics . . . transducer crystals . . . or any conventional or special optical element.

The Valpey fabricated component above, for example, is a 5.340" long optically polished pyrex cone having stepped I.D. holes of .125", .500", and .751" $\pm .001$ ", concentric to .001" T.I.R. and parallel to .000010". The sharp 16° polished point is accurate to within 2 seconds of arc.

But the shape or material really doesn't matter too much because Valpey is prepared to handle nearly any material; to nearly any shape, and in any quantity.

And when we are confronted with particularly unusual problems we have the technical staff and instrumentation to meet those problems successfully.

Write us for specifications data . . . send along a print for our quotation . . . or call us collect if we can help you with an urgent problem.



VALPEY
CORPORATION

1025 Highland St. / 300 N. Newport Blvd.
Holliston, Mass. / Newport Beach, Calif.