we hear that

and theoretical biology at the University of Chicago; Sidney Darlington, a consultant for Bell Labs, Murray Hill, N.J.; Hans G. Dehmelt, professor of physics at the University of Washington, Seattle; Robert N. Hall, a physicist with the General Electric R&D Center, Schenectady, N.Y.; Leo P. Kadanoff, university professor of physics and engineering at Brown University; Isabella L. Karle, head of the x-ray analysis section, Laboratory for the Structure of Matter, Naval Research Laboratory; Richard J. Reed, professor of atmospheric sciences, University of Washington, Seattle; Peter M. Rentzepis, head of the physical and inorganic chemistry research department, Bell Labs, Murray Hill; F. Sherwood Rowland, professor of chemistry, University of California, Irvine; David A. Shirley, head of the materials and molecular research division, Lawrence Berkeley Laboratory; Walther Stoeckenius, professor of cell biology at the Cardiovascular Research Institute, University of California, San Francisco; Lynn R. Sykes, professor of geology, Columbia;

Ping King Tien, head of the electron physics research department, Bell Labs, Murray Hill; Shmuel Winograd, an IBM Fellow at IBM, Yorktown Heights, N.Y.; Lincoln Wolfenstein, professor of physics at Carnegie-Mellon University, and Carl I. Wunsch, Cecil and Ida Green professor of oceanography at Massachusetts Institute of Technology.

Among the new foreign associates are: Johannes Geiss, director of the Institute of Physics, University of Berne; Rudolph L. Mössbauer, professor of physics at the Technical University of Munich; Guiseppe Occhialini, professor of physics at the University of Milan; John C. Polanyi, professor of chemistry at the University of Toronto, and Maarten Schmidt of the Netherlands, chairman of the division of physics, mathematics and astronomy at California Institute of Technology.

In addition to these new members, the Academy elected four new councillors, two of whom are physicists: Philip H. Abelson, president of the Carnegie Institution of Washington, and Charles H. Townes, university professor of physics at the University of California, Berkeley.

on the propagation of phonons in liquid and solid helium.

E. G. S. Paige of the University of Oxford was presented with Duddell Medal and Prize for his contributions to the physical understanding, invention and design of devices based on surface acoustic waves.

The Glazebrook Medal and Prize was awarded to Sir George Macfarlane, formerly of the British Ministry of Defense, for his administration of governmental science and technology.

Philip Anderson of Bell Laboratories received the Guthrie Medal and Prize for his outstanding work in the field of theoretical solid-state physics.

The IOP Maxwell Medal and Prize was presented to M. V. Berry of the University of Bristol, for his general work in several fields within theoretical physics.

P. T. Matthews, of the University of Bath, received the Rutherford Medal and Prize for his work in elementary-particle physics.

Marvin L. Goldberger, the Joseph Henry Professor of Physics at Princeton University, was appointed president of the California Institute of Technology. Goldberger, a theoretical high-energy physicist, takes office on 1 July and will succeed Harold Brown in the post. Brown resigned his position at Caltech last year to become Secretary of Defense.

The French Legion of Honor was bestowed upon Chauncey Starr, physicist and president of the Electric Power Research Institute. The Legion of Honor is the highest award given by the French Republic in recognition of outstanding service to France and was presented to Starr for his efforts in promoting scientific and industrial understanding between France and the United States.

Frank Franz, professor of physics at Indiana University, was named the Dean of Faculties at the University. He will maintain his position within the physics department while serving in the new post.

Neville J. Woolf was appointed the acting director of the new Multi-Mirror Telescope for its final construction and early testing phase. The MMT, owned and operated by the Smithsonian Astrophysical Observatory and the University of Arizona, is scheduled to begin astronomical observations by next fall.

Robert K. Soberman is the new manager of the physics and materials section of the Franklin Institute Research Laboratories physical and life sciences department. He was formerly a vice-president at the University City Science Center in Philadelphia.

Physicists receive NAS awards

The National Academy of Sciences presented nine awards at its annual meeting in April. Physics-related winners were John R. Winckler, Raymond Davis Jr, John Verhoogen, Sir George Porter and Günter Blobel.

Winckler received the Henryk Arctowski Medal and a \$5000 honorarium for his work on solar modulation and acceleration of high-energy particles, and also for his discovery of solar-flare gamma rays and auroral x rays. He is a professor in the School of Physics and Astronomy at the University of Minnesota, Minneapolis.

Davis, a member of the department of chemistry at Brookhaven National Laboratory, was awarded the Cyrus B. Comstock prize "for his determination of the intensity of neutrino radiation reaching the earth." A \$5000 honorarium accompanies the prize.

Verhoogen won the Arthur L. Day Prize and Lectureship, together with a \$10 000 honorarium, for his work on the thermodynamics of the Earth's core and mantle and general contributions to Earth sciences. He is a professor in the department of geology and geophysics at the University of California, Berkeley.

Porter, director and Fullerian professor of chemistry at the Royal Institution in London, delivered the Howard P. Robertson Memorial Lecture and received the \$2500 honorarium that accompanies it. This award honors Porter's work on photochemistry and photobiology, especially the development of flash photolysis.

Blobel is the winner of the US Steel Foundation Award in Molecular Biology and its \$5000 honorarium. A professor in the department of cell biology at Rockefeller University, he receives the award for his work on mechanisms by which secreted proteins pass into and across membranes.

Other NAS award winners were John N. Mather, mathematician at Princeton (John J. Carty Medal), Donald A. Henderson, dean at the School of Hygiene and Public Health, Johns Hopkins University (NAS Public Welfare Medal), Howard Green, biologist at MIT (Selman A. Waksman Award in Microbiology) and Noel D. Vietmeyer of the Commission on International Relations (NASA award for Distinguished Service).

IOP honors seven physicists

The Institute of Physics made a series of awards at its Annual Dinner held on 2 May in London. Covering a wide range of research and administrative areas, the awards were presented to the following seven physicists:

R. A. Sherlock of the University of Waikato, Hamilton, New Zealand and A. F. G. Wyatt from the University of Exeter in the United Kingdom both received the Charles Vernon Boys Prize for their work

we hear that

Sir Charles Frank of the University of Bristol has been awarded the first Crystal Growth Award of the American Association for Crystal Growth. The Award, consisting of a ruby crystal and a cash prize, was given to Frank for his outstanding contributions to the field of crystal growth.

First-prize winners of the Gravity Research Foundation Awards for Essays are jointly R. Brout, F. Englert and E. Gunzig, of the University of Brussels. Their essay is entitled The Causal Universe.

New assistant professors in the physics department of the University of Oregon are James R. Chelikowski, formerly of Bell Labs, and David R. Sokoloff, from the University of Michigan at Dearborn.

All Javan, professor of physics at Massachusetts Institute of Technology, has been named Francis Wright Davis professor of physics there.

Geoffrey Burbidge will move in Fall 1978 from his position as professor of physics at the University of California, San Diego, to become director of the Kitt Peak National Observatory in Tucson, Arizona.

The new president of the University of Maryland is **John Toll**, who leaves his former position as president of the State University of New York at Stony Brook.

WHY NOT THE BEST

Cryogenic Temperature Sensor?

our CRYO RESISTOR

Germanium Resistance Thermometer

- * 1.5-100 K Calibration
- * 3mK Accuracy
- * 0.5 mK Reproducibility
- * Uniform Sensitivity

For recommendations on compatible readout and controller units, write or call

CFOCAL.

5301 Edina Industrial Blvd. Minneapolis, MN 55435 USA Phone (612) 831-5671

International Specialists in Precision Cryogenic Thermometry

Circle No. 49 on Reader Service Card

ASSISTANT ASTRONOMER

The Institute for Astronomy, University of Hawaii. has a position available for an Observational Infrared Astronomer with some background in instrumentation. The position is full-time, federally funded, to begin approximately October 1978, for one year initially, and annually renewable for at least 3 years dependent on availability of funds. The incumbent will have the responsibility for the development and maintenance of infrared instrumentation and will be required to provide some aid to visiting scientists on the 3-meter Infrared Tele-The incumbent will also carry out independent research in ground-based infrared as-The position will be located at the Institute for Astronomy in Manoa, but the incumbent will be expected to travel to Mauna Kea at least once a month. Good health is required for work at 14,000 ft. elevation. Minimum qualifications: PhD in Physics and/or Astronomy, and success as a researcher as demonstrated by record of publications. Special preference will be given to candidates with background in planetary infrared observations and their interpretation. Minimum monthly salary \$1284/mo. Applicants should send a curriculum vita (including a list of publications and a statement of research interests) together with the names of at least three references to Dr. John T. Jefferies, Director; Institute for Astronomy; 2680 Woodlawn Drive; Honolulu, Hawaii 96822 by July 31, 1978.

AN EQUAL OPPORTUNITY EMPLOYER

obituaries

William Wright

William E. Wright died at his home in Bethesda, Maryland on 9 March; he was 57 years old. Many readers of PHYSICS TODAY will have known him as a dedicated and very effective advocate for basic research. In his 28 years' career in the Office of Naval Research and the National Science Foundation he had received many rewards and recognitions from both agencies.

Wright was born in Illinois and had his early upbringing there. In 1942 he received his BA degree in mathematics from DePauw University, and during World War II he served in the US Naval Reserve. The war's end found him on active duty at the Office of Naval Research, soon to emerge as the first federal agency for across-the-board support of basic research. Upon discharge to inactive duty he went to the Massachusetts Institute of Technology where he earned a PhD in nuclear physics. This completed, in 1950 Wright rejoined the Nuclear Physics Branch of the Office of Naval Research. There he served successively as Head, Nuclear Physics Branch (1953-62) and as Director, Physical Sciences Division (1962-66).

In 1966 Wright moved to the National Science Foundation as Deputy Director of the Division of Mathematical and Physical Sciences. Within that year he became Division Director and served in that capacity and as Director of the Physics Division until last year when he became Senior Planning Officer for the Directorate of Mathematical and Physical Sciences, and Engineering. He was serving in that post at the time of his death.

If one wished to characterize William Wright in few words, those words would be: integrity, conviction, understanding and good will. He possessed all of these qualities to a remarkable degree. He felt



deeply both the value of basis research and his responsibility toward the citizens and government of the United States. He was completely dedicated to the public interest and to enhancing the contributions made by scientific research to that interest. Moreover, he had an unusually keen and quick understanding of policy issues, and of the needs both of scientists engaged in research and of government officials having responsibility for the use of public funds. He was good at visualizing the probable impact of proposed new policies. Finally, he was much appreciated by his colleagues, because of his unfailing good humor, and-more than that-his genuine goodwill toward all the people in and out of the government with whom he had dealings. Wright will always be remembered by his colleagues as one who recognized that loyalty in a hierarchical organization should extend downward as well as upward, and who acted accordingly.

Wright used all of these qualities to good effect, both in increasing the amount of Federal support available to science