

of \$19.2 million in the 1981 budget.

Several new themes permeate the 1981 NSF budget. New and strengthened programs to stimulate industrial innovation, as prescribed by Carter last year (PHYSICS TODAY, January, page 119), are planned. For example, the Foundation will increase its support of industry/university cooperative research programs by more than \$20 million. NSF is also moving to strengthen opportunities for small businesses to contribute to the national research effort; an increase of \$10 million is requested for the Small Business Innovation Research Program, bringing the total budget for this program to about \$13.0 million.

Another special effort is to upgrade university research laboratories, many of which, NSF notes, have outdated facilities that bring less than optimal return on the Federal dollar investment. NSF will

make a start on alleviating this problem with a \$14.3 million matching-grant program to improve such facilities.

Science education. Two NSF science-education programs, the Minority Institutions Science Improvement program and the Elementary School Science Teacher Training program, have been transferred to the new Department of Education (PHYSICS TODAY, December, page 88), but NSF continues to be the key agency responsible for strengthening science education at all academic levels. In FY 1981, the Foundation will continue to concentrate efforts at the junior high school level, because experience has shown that large numbers of students, especially minorities and women, drop out of science courses at this level. The FY 1981 budget request for science education at NSF is \$85.7 million, a 10% increase over last year.

Funding for the Foundation's Regional Instrumentation Facilities program will drop \$1.8 million in FY 1981 to \$3.0 million. No new facilities will be funded in 1981 in order that NSF can evaluate the success of the experimental program. Fourteen regional laboratories have been set up since the program was initiated two years ago (PHYSICS TODAY, February, page 22).

The NSF's largest new start in FY 1981 will be a 10-year Ocean Margin Drilling Program, using the government-owned ship, *Glomar Explorer*, and an advanced deep-ocean drilling system. The program should result in new information on continental drift and the history of the continental margins. OMDP is expected to cost \$700 million, which will be shared evenly with several petroleum companies. NSF has requested \$10 million for this program in FY 1981.

—MEJ

the physics community

ACA elects Johnson as vice-president

American Crystallographic Association members have elected Quintin C. Johnson, associate department head of chemistry and materials science at Lawrence Livermore Laboratory, as their vice-president for 1980. In addition, Robert A. Sparks of California Scientific Systems, Sunnyvale, Cal., was selected to be the Association's treasurer for the next three years beginning in July.

Johnson took his BA from St. Olaf's



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College, Northfield, Minnesota in 1957. Four years later, the University of California, Berkeley granted him his doctorate in chemistry. From 1960 to the present, he has worked at the Livermore facility as a crystallographer doing high-pressure crystallography and flash x-ray

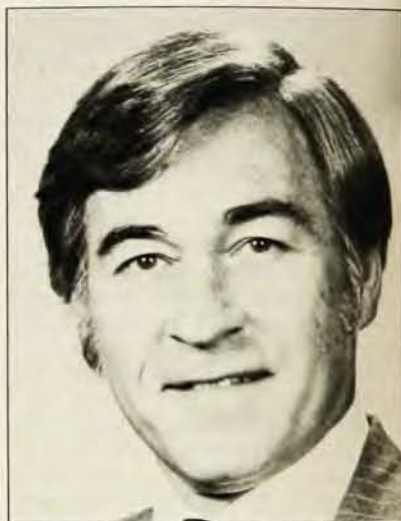
diffraction studies, and developing methods to automate powder diffraction analysis. Johnson succeeds Harold W. Wyckoff (Yale University), who moves up to the presidency. Wyckoff in turn succeeds Jenny P. Glusker (Institute for Cancer Research, Philadelphia, Pa.).

Madden chosen as OSA vice-president

The Optical Society of America has elected Robert P. Madden to the office of vice president. Madden will become president-elect in 1981 and president the following year. The 1979 president-elect, Warren Smith (Infrared Industries Inc., Santa Barbara, California), has succeeded Dudley Williams (Kansas State University) to the presidency and Anthony DeMaria (United Technologies Research Center, East Hartford, Conn.), will become president-elect. All of these officers serve on the OSA board of directors.

Madden, who is chief of the far ultraviolet physics section, optical physics division, National Bureau of Standards, earned a BS at the University of Rochester in 1950. Johns Hopkins University granted him a PhD in physics six years afterwards. He was a staff member at the Laboratory for Astrophysics & Physical Meteorology, Johns Hopkins University, from 1953 to 1958. For the next three years Madden served as a physicist and section chief at the US Army Engineering Research Laboratories, Ft Belvoir, Virginia. In 1961, he joined the NBS where he currently conducts and manages vacuum-ultraviolet and soft x-ray radiation studies on atoms, molecules, solids and surfaces.

OSA members have also elected three



MADDEN

directors-at-large to three-year terms. They are Alexander J. Glass (Lawrence Livermore Laboratory), John L. Hall (Joint Institute for Laboratory Astrophysics, NBS) and Walter P. Siegmund (American Optical Corporation).

in brief

Two panel studies conducted by the Council on Materials Science of the Department of Energy have now been published. The panel reports, *High Temperature Ceramics*, chaired by H. Kent Bowen of MIT, and *Theory of Surfaces*, chaired by Donald R. Hamann of Bell Laboratories, are available from Donald K. Stevens, Division of Materials Sciences, Department of Energy, Washington, D.C. 20545. □