

Physicists and Earth Scientists Issue Studies of Opportunities, Needs in Their Research Fields

Following the ground-based astronomers and the oceanographers (*Science*, 13 November and 25 December), the earth scientists and the high-energy physicists have now issued studies aimed at explaining their disciplines' significance, opportunities, and needs.

"Nature of matter, Purposes of High Energy Physics," contains a foreword by J. R. Oppenheimer and papers by 29 physicists. The 149-page study, which contains material intended for scientists and laymen, was prepared at the Brookhaven National Laboratory, under the editorship of Luke C. L. Yuan. Copies, at \$1.75 each, are available from the Clearinghouse for Federal Scientific and Technical Information, National Bureau of Standards, U.S. Department of Commerce, Springfield, Virginia.

The earth scientists' study, "Solid-Earth Geophysics, Survey and Outlook," was prepared by the panel on solid-earth problems of the National Academy of Sciences. Unlike the high-energy study, it proposes a program of expenditures, covering 10 years. The program calls for increasing funds for research, facilities, and training, from a current annual total of \$24.9 million to an annual total of \$65.6 million at the end of 10 years. The 10-year total of expenditures would be \$571 million. The 198-page study is available for \$4 from the Printing and Publishing Office, National Academy of Sciences, 2101 Constitution Ave., NW, Washington, D.C. 20418.

Announcements

Formation of the **European Society of Pathology** has been announced. Its main purposes will be to organize meetings, symposiums, courses, and research centers. The Society consists of a general assembly, a council, composed of one member from each country, and an executive committee, elected by the council. The secretary of the society is Alfonso Giordano, Istituto di Anatomia e Istologia Patologica, Università di Milano, Via Francesco Sforza 38, Italy.

The National Bureau of Standards' Institute for Basic Standards of the U.S. Department of Commerce has begun the issue of newly revised test

charts for evaluating the resolving power of **microfilming systems**. NBS, which began distribution of the charts on 1 December, revised them to provide for a wider range of spatial frequencies than were available previously. In addition, small changes in the numbers assigned to these patterns make them conform to international usage. Government specifications for microfilming services have been amended to permit the use of either the old or the new charts in determining resolution. (*Microcopy Resolution Test Chart*—Standard Sample 1010, Standard Samples Unit, NBS, Washington, D.C. 20234, 20¢—minimum order: \$1.00)

The Arts and Sciences Division of the Republican State Central Committee of California is seeking the assistance of "**Republican scholars** who are experts in specific areas such as education, political science, economics, and technology to help the Party analyze the results of the 1964 elections and prepare for the 1966 elections." Alan S. Tetelman, associate professor of engineering (materials science) at Stanford University, has been appointed head of the division. (Republican State Central Committee, Arts and Sciences Division, 1025 Home Tower, 707 Broadway, San Diego, California)

Grants, Fellowships, and Awards

Applications for three internships in **medical librarianship** for the 1965–66 academic year are being accepted by the Biomedical Library at the University of California Center for the Health Sciences, Los Angeles. The program offers work combined with enrollment in a limited number of courses selected from the following fields: foreign languages, documentation, biological sciences, and history of science. Applicants must be U.S. citizens and hold a master's degree from library schools accredited by the American Library Association. Deadline for applications: *30 March*. (L. Darling, Biomedical Librarian, Biomedical Library, University of California, Center for the Health Sciences, Los Angeles 90024)

Two postdoctoral fellowships in **viral carcinogenesis** are available at the University of Colorado Medical School. They will begin in July, and will allow the recipients 2 years of research in the department of pathology at the univer-

sity. The fellowships are sponsored by the U.S. Public Health Service. Application deadline: *1 April*. (D. W. King, Department of Pathology, University of Colorado Medical Center, 4200 East 9th Avenue, Denver 20)

Graduate fellowships for **forestry research** are being offered by the department of forestry, Ohio Agricultural Experiment Station, and Ohio State University's departments of agronomy and botany. Recipients of the awards will work full time at the agricultural experiment station on forest genetics, tree physiology, forest soils, or wood anatomy, after completing course work at O.S.U. The stipends will be up to \$3000 a year. Programs will start at several times during the year. Deadline for the program beginning 5 April: *1 March*. (H. B. Kriebel, Department of Forestry, Ohio Agricultural Experiment Station, Wooster)

Applications are being accepted for 13 **teaching internships** in a program sponsored by the Great Lakes Colleges Association and the Kettering Foundation of Dayton, Ohio. Ten positions are open in biology, three in chemistry; candidates must hold a doctorate in either field or be completing work toward it. They should be under 35 years of age and not have taught at a college or university except as graduate assistants. Appointments will carry stipends of \$7500 to \$9000 for the academic year. Deadline for applications: *31 March*. (R. Yalman, Department of Chemistry, Antioch College, Yellow Springs, Ohio)

The Southeast Asia Treaty Organization is offering **research fellowships** for 1965–66. Work on problems relating directly to the present needs and future development of Southeast Asia and the Southwest Pacific areas on social, cultural, economic, political, scientific, and educational areas will be considered. The fellowships will provide air transportation and \$400 a month for periods of 4 to 10 months. Applicants must be nationals of the SEATO countries (Australia, France, New Zealand, Pakistan, the Philippines, Thailand, the United Kingdom, or the United States), and must apply through agencies in their own country. Deadline for receipt of applications from the U.S.: *15 March*. (U.S. applicants should contact the Committee on International Exchange of Persons, Conference Board of Associated Research Councils, 2101 Con-

stitution Avenue, Washington, D.C. 20418. Foreign applicants may write to the same address for the name of the correct agency for their application.)

Two postdoctoral fellowships in **neurophysiology** are being offered by the Carnegie Institution of Washington for research in the autonomies division of England's National Physical Laboratory. Applicants must be U.S. citizens who have recently received their doctoral degree. The stipend will be \$12,000 a year. Deadline for receipt of applications: *1 April*. (A. Uttley, Autonomies Division, National Physical Laboratory, Teddington, Middlesex, England)

Courses

The American Mathematical Society is planning a seminar on **relativity theory and astrophysics**, 25 July to 30 August, at Cornell University. Graduate students, postdoctoral scientists, and staff members from active centers of relativity and astrophysics research are eligible to attend. Applicants for the seminar should indicate their scientific background and interest, and graduate students should have their faculty advisers write to A. H. Taub, chairman of the invitations and organizing committee (Computer Center, University of California, Berkeley). The tuition is \$100 a week for participants from industry, but those from academic institutions and government agencies may apply for a tuition waiver. Deadline for receipt of applications: *15 March*. (G. L. Walker, American Mathematical Society, 190 Hope St., Providence, R.I. 02906)

Meeting Notes

Papers are now being solicited for the fourth **refractory metals** symposium to be held 3-5 October, at French Lick, Indiana. It will be sponsored by the Institute of Metals Division of the Metallurgical Society of the American Institute of Mining, Metallurgical and Petroleum Engineers. General areas to be covered include alloy development; intermetallic compounds; initiation and propagation of fracture; deformation mechanisms, and deformation at low temperatures; high-temperature, long-time creep; corrosion by liquid metals; rhenium ductilizing effect; effect of dispersed particles, and of thermal mechanical history; space

power; thermionic emitters; re-entry application; behavior in rocket nozzles; and application in gas turbines. Deadline for 400- to 600-word abstracts: *1 April*. (J. Maltz, Materials Research Division, National Aeronautics and Space Administration, 600 Independence Avenue, SW, Washington, D.C.)

The call for papers has been issued for the Instrument Society of America's 20th annual **instrument-automation** conference, 4-7 October in Los Angeles. Papers are invited on measurement, information processing, and automatic control; especially welcomed are state-of-the-art papers covering the aerospace and marine sciences, marine transportation, biomedicine, air and water pollution, and electronic techniques. Abstracts of 100 to 200 words are required. Deadline: *15 March*. (E. M. Grabbe, c/o Instrument Society of America, 530 William Penn Place, Pittsburgh, Pa.)

Papers are now being accepted for the third international conference on **water pollution research**, scheduled to be held in Munich, Germany, 5-7 September, 1966. General topics to be covered are freshwater pollution, waste water treatment, and marine waste disposal. Abstracts must be accompanied by an "Abstract Information Sheet." Deadline for 500- to 1000-word abstracts: *1 April*. (Bernard B. Berger, Secretary, 3rd International Conference on Water Pollution Research, P.O. Box 1907, Washington, D.C.)

Scientists in the News

Robert Convery, formerly with the research and development department of the Sun Oil Company, Wilmington, Delaware, has been appointed head of the chemistry department at the College of Steubenville, Steubenville, Ohio.

A collaborative arrangement between Manchester College of Science and Technology, England, and the Risley Establishment of the U.K. Atomic Energy Authority has been announced. The program is designed to establish close links between courses provided by the College and the current practice of technology in industry and in industrial research establishments.

Under the plan, the first appointment to a professorship has been that of **Gordon Black** to the Chair of Auto-

matic Data Processing in the Faculty of Technology in the University of Manchester. Black will remain a member of the senior staff of the Authority, where he has been head of the computer installation, while serving at Manchester.

At the National Aeronautics and Space Administration Electronics Research Center, Cambridge, Massachusetts:

Lester C. Van Atta, formerly chief scientist at Lockheed Missiles and Space Company, has been appointed director of the Center's research program in electromagnetics; and

W. Crawford Dunlap, former director of solid-state electronics research at the Raytheon Corporation, has become director of NASA's component technology research program.

Victor F. Zackay has been appointed associate head of the Inorganic Materials Division at the Lawrence Radiation Laboratory. Zackay, who has been on the University of California's Berkeley staff, succeeds **Alan Searcy**, who has become vice chancellor of the Berkeley campus.

Columbia University has announced the creation of a new academic title, "university professor." The grade is to be conferred upon senior professors of the highest distinction and will allow them to offer courses without reference to departmental boundaries.

The first appointee to this grade is **I. I. Rabi**, Nobel laureate and Higgins Professor of Physics at the University.

Also at Columbia, **Tsung-Dao Lee**, Nobel laureate and professor of physics, has been named the first Enrico Fermi Professor of Physics.

Tracy M. Sonneborn, Distinguished Service Professor of Zoology at Indiana University, has been chosen 1965 Pasteur Lecturer at Georgetown University. The annual Louis Pasteur Science Lectureship is being inaugurated by Georgetown "to acquaint the Washington academic community with timely expositions of broadly significant work at the frontiers of science." The first lectures are tentatively scheduled 9, 12, and 13 April.

Erratum: In the article on the Elliott Committee (News and Comment, 8 Jan., p. 132), it was erroneously stated that the Joint Committee on Atomic Energy was among the congressional committees that last year created subcommittees on research and development. The Joint Committee's R&D subcommittee was established in 1954 and has been extremely active ever since.