## FOR ONLY \$200,000 A modern Cyclotron for nuclear research



THIS 30-INCH AVF CYCLOTRON weighs just 30,000 pounds and requires only 175 kilowatts of power. Measures only 7' x 7' x 7' to fit in a 15' x 15' shielded room. Produces external beams of 15 Mev protons, 7.5 Mev deuterons, 20 Mev helium-3 ions, and neutrons with energy up to 25 Mev.

Simple operation with guaranteed performance. Typical applications include:

**PHYSICS 1.** Source of charged particles, photons and neutrons for low energy nuclear structure studies. 2. Negative ion injector for tandem accelerators. 3. Measurement of shielding properties and radiation damage.

**ACTIVATION ANALYSIS 1.** Single source of protons, deuterons, and helium-3, and large fluxes of fast and thermal neutrons. 2. Greater selectivity with the choice of particles. 3. Detection of low Z elements to parts per billion with helium-3.

**MEDICINE 1.** Best source of short-lived isotopes and positron emitters for diagnosis and scanning. 2. Provides collimated fast neutron beams for radiation therapy and effects studies. 3. Produces charged particles for space medicine research.



at Lake Forest College, Lake Forest, Illinois. The course is intended for university instructors and investigators. Enrollment will be limited to 40. Deadline: 1 May. (Sheldon Dray, University of Illinois Medical Center, P.O. Box 6998, Chicago 60680)

Rochester Institute of Technology will offer a course on statistical techniques in quality control, 13-22 June. The program is designed to present basic elements of statistics for research and industry. Tuition is \$275.

The course will be followed, 22-30 June, by a program on design of experiments for persons who require advanced programs for the more complex problems revolving around industrial experimentation. Tuition will be \$250.

(James Swanton, Extended Services Division, Rochester Institute of Technology, 65 Plymouth Avenue South, Rochester, New York 14608)

A course on elastomers will be offered by the institute of polymer science at the University of Akron. Attendance will be limited to 25 scientists and engineers employed in industry and business. A \$175 registration fee is being charged. Registration deadline: 15 May. (Institute of Polymer Science, University of Akron, 302 East Buchtel Avenue, Akron, Ohio 44304)

## **Publications**

The Office of Science and Technology recently published a report listing the marine science curricula being offered this year at U.S. universities. For each institution included, the report names the departments that provide instruction in the marine sciences, lists and describes the courses, and indicates the academic degrees that may be earned. It also lists the name, rank, and degree of each faculty member who teaches or supervises student research. Special information on undergraduate curricula and on financial aid are included. (University Curricula in Oceanography, Academic Year 1965-66. Interagency Committee on Oceanography, 4th Floor, Bldg. 159E, Washington Navy Yard, Washington, D.C. 20390. ICO Pamphlet No. 23; 116 pages. Free of charge)

A brochure naming the foreign scholars available under the Fulbright-Hays Act for employment at U.S. colleges and universities has been prepared by the Committee on the International Exchange of Persons, Conference Board of Associated Research Councils. The persons listed are eligible for U.S. government grants to cover round-trip transportation costs between their home countries and the host institutions, if they obtain teaching or research jobs on American campuses. The booklet provides biographical data on the scholars and describes the procedures for inviting them and the conditions of the appointments. (Grace E. L. Haskins, Committee on International Exchange of Persons, 2101 Constitution Avenue, NW, Washington, D.C.)

A recent NIH publication discusses the increasing importance of voluntary health agencies in research into national health problems. More than 50 such organizations, supported by contributions from the public, operate on a nationwide scale. The report analyzes the relationship of their research support to their other major programs and notes how much of the total expenditure is given for research and training in various fields. In 1963, the report says, the total spent for research was \$44 million; for training of research personnel an additional \$4 million was spent. Three agencies supported the largest share (two-thirds): The American Cancer Society, the American Heart Association, and the National Foundation; and each of six other organizations had programs amounting to over \$1 million. (Voluntary Health Agency Expenditures for Research and Research Training. For single copies: Research Analysis Branch, NIH, Bethesda, Md. 20014; free of charge. For multiple copies: Superintendent of Documents, Government Printing Office, Washington, D.C. 20402; 20 cents)

The National Science Foundation has issued its annual inventory of the research projects American colleges and universities are conducting on the impact of science and technology. The report includes projects on the impact of agricultural technology, decisionmaking in science and technology, international and foreign studies, and scientific and engineering manpower. Other topics range from patents and trademarks to changing patterns of research administration. (Current Projects on Economic and Social Implications of Science and Technology, 1964. Superintendent of Documents, Government Printing Office, U.S. Washington, D.C.; 50 cents)