University of Minnesota (June 11-July 14). Apply: Dr. J. W. Buchta, Associate Dean, College of Science, Literature and the Arts, University of Minnesota, Minneapolis, Minn. Qualifications: experience in teaching and potential contribution to teaching. Credit: optional, applicable to M Ed or MS in education. Sponsor: Maud W. and Louis Hill Family Foundation. Fields: mathematics, physics, chemistry.

Syracuse University (June 24-August 3). Apply: Dr. A. T. Collette, Chairman, Division of Science Teaching, Lyman Hall, Syracuse University, Syracuse 10, N. Y. Qualifications: must have bachelor's degree, be certified to teach science, and be teaching in one of the following states: Arizona, Oregon, California, Washington, Utah, Wyoming, Nevada, Kansas, Montana, Colorado, North Dakota, South Dakota, or Nebraska. Credit: optional, applicable to master's degree in a science field. Sponsor: General Electric Company. Fields: modern physics, electronics, organic chemistry, principles of chemistry. Tours of General Electric plants and research laboratories.

Union College and University (June 25-August 3). Apply: Dr. Henry J. Swanker, Director GESF, Union College, Schenectady, N. Y. Qualifications: must be teaching science, preferably with 2 or 3 years teaching experience; residence in New England, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, or District of Columbia. Credit: optional, applicable to M Ed or to MS in education. Sponsor: General Electric Company. Fields: modern physics and chemistry, physics and chemistry in industry. Field trips, GE lecturers.

Carnegie Institute of Technology (June 25-August 4). Apply: Dr. John M. Daniels, Director of Admissions, Carnegie Institute of Technology, Pittsburgh 13, Pa. Qualifications: no restrictions other than that applicant must be a teacher of science, mathematics, physics or chemistry. Credit: none. Sponsor: Westinghouse Educational Foundation. Fields: mathematics, physics, chemistry.

## Grants and Fellowships

A limited program of support of basic research in the history, philosophy, and sociology of science has been initiated by the National Science Foundation. The following grants have been made as part of the program: M. Clagett, University of Wisconsin, "Medieval Antecedents to Early Modern Mathematics and Physics", \$11 500, 1 year; P. Frank, American Academy of Arts and Sciences, "The Acceptance of Scientific Theories", \$22 000, 2 years; A. Grünbaum, Lehigh University, "A Critical Study in Philosophy of Science Bearing on Fundamental Physical Theory", \$6100, 2 years; and C. S. Smith, University of Chicago, "A Study of the History of Metallurgy", \$11 100, 1 year. Members of the Foundation's Advisory Panel for the History, Philosophy, and Sociology of Science are: I. Bernard Cohen, Harvard University; Philipp G. Frank, American Academy of Arts and Sciences; John F. Fulton,

# SANDIA

CORPORATION

invites well-qualified
PHYSICISTS AND
ENGINEERING PHYSICISTS
to investigate
CURRENT OPPORTUNITIES
in the challenging field of
NUCLEAR WEAPONS
DEVELOPMENT

We are presently seeking additional staff members with these qualifications:

#### PHYSICISTS AND ENGINEERING PHYSICISTS

Classical theorists or experimentalists, with MS or PhD degrees, to work in the fields of weapon systems analysis, blast wave propagation and diffraction, evaluation of present weapon designs, and recommendations for new weapons.

SANDIA CORPORATION, a subsidiary of the Western Electric Company located in Albuquerque, N. M., is engaged in the design and development of nuclear weapons under contract with the Atomic Energy Commission. Compensation is competitive with that offered in other industry, and employee benefits include exceptionally liberal paid vacations, free group life insurance, sickness benefits, and a generous contributory retirement plan. Interview and liberal relocation expenses are paid by Sandia Corporation. Albuquerque, center of a metropolitan area of 186,000, is located in the Rio Grande Valley, one mile above sea level. Urban shopping facilities, scenic beauty, historic interest, year-round sports, and sunny, mild, dry climate make Albuquerque an ideal home. Housing is readily obtainable.

WE WILL WELCOME THE OPPORTUNITY
TO SEND YOU FULL DETAILS
ON CURRENT CAREER OPPORTUNITIES

STAFF EMPLOYMENT DIVISION 559
SANDIA CORPORATION, Albuquerque, N. M.
Please send additional information on career opportunities at Sandia to;

NAME:

DEGREES:

FIELD:

EXPERIENCE IN FIELD:

YEARS.

ADDRESS:

If you wish to submit a more complete resume of

If you wish to submit a more complete resume of your qualifications, we will be happy to give it full consideration immediately.



ALBUQUERQUE, NEW MEXICO

A two-volume treatment of modern field theory and experimental as well as theoretical meson physics.

## MESONS AND FIELDS

Vol. I-FIELDS

by Silvan S. Schweber, Associate Professor of Physics, Brandeis University; Hans A. Bethe, Professor of Physics, Cornell University; and Frederic de Hoffmann, Vice-President, General Dynamics Corporation.

Contents: One-particle relativistic wave equations; fields and interaction; quantum theory of fields; the renormalization program.

### Vol. 2-MESONS

by Hans A. Bethe and Frederic de Hoffmann.

Contents: Properties of pi mesons; meson scattering; photoproduction; meson theory; meson production of particles; other mesons.

> Price for each volume \$ 8.00 \$15.00 The two volumes together

Evanston,

White Plains, Row, Peterson & Co.

**AAAAAAAAAAAAA** 

## SEMI-CONDUCTOR DEVICES

The expansion of our semi-conductor program has created an excellent opportunity for a Senior Solid State Physicist of high calibre and experience in the field of device exploration. Our device feasibility studies are part of a major research activity which also comprises crystal growing and evaluation, studies of surface and contact behavior, p-n junctions, photoelectric phenomena, and the technology of transistor materials.

Please send complete resume to:

Dr. M. E. Bell, Manager Solid State Branch Sylvania Center



Bayside, L. I., New York

All inquiries will be answered within two weeks

Yale University; R. B. Lindsay, Brown University; Richard H. Shryock, The Johns Hopkins University; and Joseph J. Spengler, Duke University. Research proposals under the program will be received by NSF at any time. Further information may be obtained from the National Science Foundation, Washington 25, D. C.

Brookhaven National Laboratory has announced the availability of postdoctoral research associate appointments for a one-year period. Those interested should submit their applications by February 15th to Dr. R. C. Anderson, Brookhaven National Laboratory, Upton, New York. Awards are made on the basis of the research interests of the applicant, his academic record, letters of recommendation, and, when feasible, personal interviews. The application should be accompanied by a letter describing the candidate's current research interests and the investigation he would like to undertake if appointed. The latter description may consist of the presentation of a specific problem or of a field of research in which a problem is to be selected after consultation with the Brookhaven staff.

Princeton University has announced a curriculum of graduate study and fundamental research in plastics, leading to the master of science degree in engineering, designed particularly for chemists, physicists, and chemical, electrical, and mechanical engineers. Fellowships with stipends of \$1500 to \$2100 plus tuition and fees, or opportunities for employment as half-time research assistants at \$1500 per year, are available. Applicants for admission must hold a bachelor's degree in physical or engineering science from a recognized institution. For further information and application forms, write to Louis F. Rahm, Director, Plastics Laboratory, 30 Charlton Street, Princeton, N. J.

The Atomic Energy Commission has made available as many as 75 fellowships for 1956-57 in radiological physics, according to the Oak Ridge Institute of Nuclear Studies, which administers the fellowships. The program provides for a year of courses at one of three universities, followed by transfer to an AEC installation for three months training in applied health physics. Centers for the program are at the University of Rochester, in cooperation with Brookhaven National Laboratory; the University of Washington, with the Hanford Works; and Vanderbilt University, with Oak Ridge National Laboratory. Programs include training in modern physics, radiation biology, radiation instrumentation, industrial hygiene and toxicology, biology, and research. Basic stipend is \$1600, with an additional \$350 for each dependent, plus tuition fees. Applicants may designate their choice of institutions and, when possible, assignments will be made accordingly. Requirements include a bachelor's degree in physics, chemistry, or engineering, acceptability for graduate work at the university to which the fellow is assigned, and US citizenship; applicants must be under 35. Additional information and application blanks may be obtained from the Fellowship Office, University Relations Division, Oak Ridge Institute of Nuclear Studies, PO Box 117, Oak Ridge, Tennessee. Completed applications, supporting letters of reference, and transcripts must reach ORINS by March 1st.

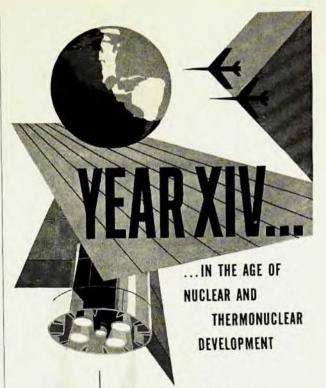
#### Publications

The proceedings of the pre-Geneva conference on peaceful uses of atomic energy held by the Academy of Sciences of the USSR (Moscow, July 1-5, 1955) have been published in complete English translation by Consultants Bureau, 259 West 14th Street, New York 11, N. Y. The 87 reports included in the four-volume set of the proceedings do not duplicate reports read by Soviet scientists at the Geneva Atoms-for-Peace Conference. The appropriate reports to the plenary session have been incorporated in each of the four volumes. published as follows: Proceedings of the Conference of the Academy of Sciences of the USSR on the Peaceful Uses of Atomic Energy, July 1-5, 1955: Sessions of the Physico-Mathematical Division, \$175; Sessions of the Chemical Division, \$150; Sessions of the Biology Division, \$150; Sessions of the Technology Division, \$125. All diagrams, photographs and tabular material are reproduced in the translation. The complete set of four volumes can be purchased for \$400. Individual reports are available at \$12.50 each.

The report Critical Years Ahead in Science Teaching is again available for distribution without cost through the kindness of the Carnegie Corporation. Copies may be obtained by writing to Mr. Elbert Weaver, Phillips Academy, Andover, Massachusetts. Self-addressed stickers for envelopes are appreciated.

The first issue of Nuclear Science and Engineering, the journal of the American Nuclear Society, is scheduled to appear this month. Published by Academic Press Inc., 125 East 23rd Street, New York 10, N. Y., the journal will be devoted to papers describing original work in the fields of interest to the Society. J. G. Beckerley of Schlumberger Well Surveying Corporation, Houston, has been named editor. He will be aided by Francis T. Miles of Brookhaven National Laboratory as assistant editor and by a publications committee consisting of Harold Etherington, Winston Manning, and Alvin M. Weinberg. Physics is represented on the journal's 23-man editorial advisory board by the following persons: Harvey Brooks, G. Goertzel, D. G. Hurst, Henry Hurwitz, Jr., O. C. Simpson, and R. Taschek.

Volume I, Number I of the monthly journal Nuclear Physics was issued at the start of this year by the North-Holland Publishing Company, Amsterdam. Edited by Professor L. Rosenfeld, Department of Theoretical Physics, The University of Manchester, England, the new journal is "devoted to the experimental and theoretical study of atomic nuclei, nuclear fields, and the fundamental aspects of cosmic radiation". It will include (in English, French, or German) original papers, short notes, survey articles, progress reports, news items, and book reviews. The first issue (72 pp.) contains articles by R. K. Gupta and S. Jha



Interested in it? So are we!

For here at world-famous Los Alamos Scientific Laboratory, responsible for unleashing the terrifying power of the atom, we are now pioneering in harnessing this power for beneficial uses.

There is exciting adventure in the application of nuclear and thermonuclear energy to weapons, power and propulsion.

Supporting these diverse activities here at Los Alamos are many challenging projects in basic physics, chemistry, metallurgy, mathematics and engineering.

Los Alamos needs men and women with imagination and research ability for permanent career positions. Interested? So are we!

Write us for an illustrated brochure describing the Laboratory, its delightful mountain location and its excellent housing and community facilities. Mail your request to

DIRECTOR OF PERSONNEL DIVISION 509



LOS ALAMOS

NOW IN ITS 14TH YEAR OF OPERATION.

SCIENTIFIC LABORATORY IS