

PUBLISHING NEWS

Journals

Starting with its January 1963 issue (Vol. 4, No. 1), the *Journal of Mathematical Physics*, which has appeared bimonthly since its inception in 1960, will become a monthly publication. Subscription prices for the new 12-issue volumes will be adjusted as follows: Members of AIP societies will now pay \$15 per year instead of \$8, and nonmembers will pay \$20 instead of \$10.

The journal was established as a medium for highly mathematical physics articles and papers on branches of mathematics which are currently or potentially useful for the development of theoretical physics. Among the subjects covered by the journal are: analysis, classical continuum physics, distribution functions, quantum field theory, graph theory, group theory and symmetry operations, isoperimetric inequalities, lattice dynamics, matrices, electron plasmas, radiation, relativity, scattering theory, special functions, statistical mechanics, equilibrium theory, and the many-body problem. The journal is edited by Elliott Montroll of the IBM Research Center at Yorktown Heights, N. Y.

Volume 1 (pages 1-80) of *Topology*, a new international quarterly originally conceived by the late J. H. C. Whitehead of Oxford, has been published by Pergamon Press. The journal aims to cover all aspects of topology, including areas employing such topological techniques as homological algebra, Lie groups, differential geometry, and algebraic geometry. The editorial board consists of M. F. Atiyah (Oxford), R. Bott (Harvard), F. Hirzebruch (Bonn), I. M. James (Oxford), and R. Thom (Strasbourg).

Annual subscription rates are \$30 for libraries and \$10 for individuals who place their orders directly with the publisher and certify that the journal is for their personal use. Subscription requests and information concerning contributions should be addressed to Pergamon Press Inc., 122 East 55 Street, New York 22, N. Y.

Materials Research: Properties and Testing of Engineering Materials is the title of a new international quarterly published by Heywood and Co. of London. Articles will appear in English, accompanied by abstracts in English, French, German, Italian, and Russian. The editors are E. G. Stanford (Banbury), T. J. Dolan (Illinois), and P. G. Bastien (Paris).

The first issue of the new journal, which appeared in April, contains a survey article on the properties and structure of metals, and several papers dealing with flaw-testing techniques and equipment and with the

characteristics and behavior of various materials of engineering interest.

Subscriptions (£5 per year) can be ordered from Heywood and Co., Ltd., Drury House, Russell Street, Drury Lane, London, W. C. 2, England.

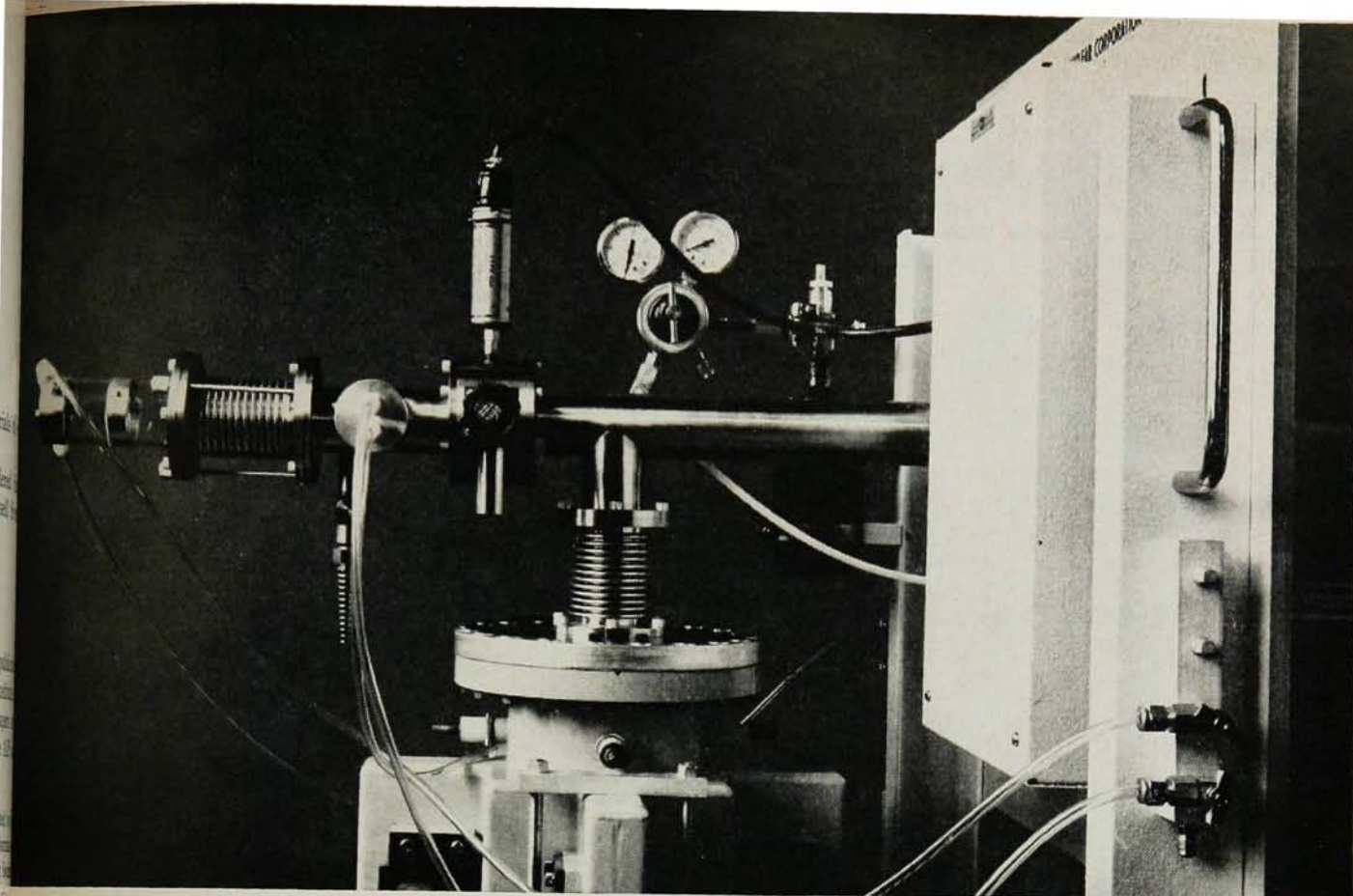
Publication Charges

The following statement of policy on publication charges has been issued by the American Institute of Physics for the information of authors of papers submitted to the various research journals of the AIP and its Member Societies:

Page Charge. The author's institution is requested to pay publication charges for articles in most of the journals of the American Institute of Physics and its Member Societies. The basic philosophy stated by Dr. Tate in 1930, when this policy was initiated by *The Physical Review*, is now widely accepted—that a research investigation is not completed until the results are published and that the agency supporting the research has an obligation to support part of the cost of publication. We believe that physicists need to have their own copies of many of our journals and that subscription prices should therefore be kept as low as possible. The arrangement toward which we are striving would have the publication charges cover the costs of editorial work and composition so that subscriptions would have to cover only paper, printing, and distribution.

Federal Support. Our journals are not published for profit; the page charges do not cover the entire cost of publication; the schedule of page charges is the same for all authors; payment of publication charges is voluntary and is not a condition for the acceptance of a manuscript for publication. These are the qualifications for the payment of page charges out of federal funds under the policy stated in October 1961 by the US Federal Council for Science and Technology. As examples of authorizing directives, see Army R and D Directive NR310-2, SECNAV Instruction 5604.2, and Air Force Regulation No. 80-33.

Abstract Charge. The publication-charge philosophy stated above has been extended to include abstracting and indexing as essential to the completion of a research investigation in order to make the results fully available to other scientists. The principal English-language abstracting and indexing service for physics, which has been supported in part out of dues income for many years by The American Physical Society, is *Physics Abstracts*, which is Section A of *Science Abstracts*, published in London by the Institution of Electrical Engineers. Beginning with January 1963, an abstract charge of \$10 per article will be added to the page charges for articles carrying abstracts in most of the journals published by the American Institute of Physics for itself and for the Member Societies. The proceeds will be



*Texas Nuclear Corporation is a subsidiary of Nuclear-Chicago

The inexpensive Texas Nuclear neutron generator produces a yield of 10^{11} n/sec

The usefulness of the Texas Nuclear* accelerator extends to nearly every phase of neutron research because of its high yield and versatile performance. It is capable of a fast yield of 10^{11} n/sec and a usable flux of 10^9 n/cm²-sec. The output is sufficient to attain sensitivities in the parts-per-million range in activation analysis of many elements.

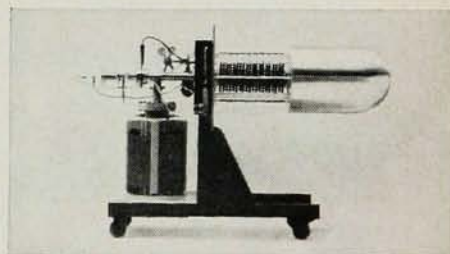
The low energy (150 kv) accelerator produces neutron fluxes equal to those of costly high energy machines. The neutron generator was specifically designed for the prolific T(d, n) reaction in which high current rather than high voltage is more advantageous. Deuteron beam currents up to 1,000 microamperes may be selected.

New, long-lived tritium targets are now much more economical to use. For example, high concentration tritium targets have half-lives of 240 minutes when continuously bombarded with a deuteron beam of one milliamper. Target changes require only 15 minutes of down-time.

an electronic ion pump which is virtually free of maintenance. The pump is silent in operation and contains no organic fluids which could contaminate the system.

Neutron generators are supplied as completely instrumented accelerator systems and include the compact, mobile accelerator (illustrated at the right), 150 kv power supply, and main control console. Pulsed accelerators are also supplied with a pulsing control console. The power supply is ordinarily operated with positive polarity, but its polarity may be reversed for acceleration of electrons. The main control console provides visual display of all operating conditions. High voltage, vacuum, focus, gas flow, and solenoid supplies may be controlled from the console.

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transmitted to *Physics Abstracts*. It is anticipated that this voluntary obligation will be accepted by a very high percentage of the institutions supporting research, corresponding to our experience with page charges.

Compilations

The 1950-54 cumulative subject index for Section A (Physics) of *Science Abstracts*, containing more than 100 000 entries under nearly 1200 subject headings, has recently been published in England. An author index covering the same period was issued in the fall of 1956. Author and subject indexes for Section B (Electrical Engineering) were published in 1956 and in 1959, respectively. Copies of the Section A subject index, priced at \$4.90 each, can be ordered from the Institution of Electrical Engineers, Savoy Place, London, W. C. 2, England.

Superconductivity is the subject of an Air Force study and a bibliography which are now available from the Office of Technical Services, US Department of Commerce, Washington 25, D. C.

Superconductivity In Metals and Alloys (AD 268 781; \$1.75), by W. H. Cherry and others at RCA Laboratories, presents the results of a search for new superconductors and the study of the factors affecting the transition between the normal and superconducting states of metals, alloys, and intermetallic compounds. The report includes a method for the measurement of interphase energy in superconductors.

Superconductivity, 1959-1961—An Annotated Bibliography (PB 181 088; \$3) lists 355 items of published material covering the theory, properties, and applications of superconductors.

Information Handling

The National Aeronautics and Space Administration has contracted with Documentation Inc. for the first year's operation of NASA's new Scientific and Technical Information Facility in Bethesda, Md. Operated under the technical direction of NASA's Office of Scientific and Technical Information, it will supply information concerning the space sciences to NASA, its prime contractors, and other designated organizations. The data gathered will be processed on magnetic tape, copies of which will be distributed to each of the nine NASA centers in different parts of the country.

It is expected that approximately 20 000 titles from non-NASA sources (exclusive of journals) will be entered into the system annually and that some 500 information-exchange agreements will be established with other groups during the first year of operation. Items considered relevant will be abstracted, indexed, and entered into the system within ten days of receipt, and the facility plans to issue completely indexed abstract journals on a semimonthly basis. NASA is prepared to distribute about one million microfilm copies and 100 000 full-size copies of NASA-published documents each year.

A two-phase plan to improve the efficiency of engineering information retrieval has been inaugurated by the Engineers Joint Council. The basis of the plan is to abstract and index the literature at the time of its original publication. The two phases involved are a training program for source indexers and a study of engineering terminology, looking toward the development of an engineering thesaurus to aid the indexing programs.

Abstracting and indexing training is being offered free of charge by the EJC to the editorial staff of any technical publication. The program consists of two days of classroom instruction on concept-coordination indexing and the preparation of indicative abstracts, followed by a week of actual work sessions with each participant using material from his own publication. Additional information concerning the program can be obtained by writing to L. K. Wheelock, Engineers Joint Council, 345 E. 47th St., New York 17, N. Y.

In the second phase of the program, engineering societies are in the process of collecting material from various sources: annual title indexes of their technical journals, terms used in their subject indexes and abstracts, existing glossaries and word lists, etc. A group of working panels is being set up under EJC chairmanship to screen the lists so as to insure the inclusion of all important words in the engineering vocabulary. Later, the EJC plans to publish the selected lists in thesaurus format.

Proceedings

The *Proceedings of the International Conference on High Energy Accelerators* have been published by the Atomic Energy Commission as a 490-page report containing the papers presented at the meeting, together with a transcript of the discussions. The biennial conference which took place at Brookhaven National Laboratory and in New York City in September 1961, was sponsored by the AEC, the International Union of Pure and Applied Physics, and Associated Universities, Inc., with the Brookhaven Laboratory acting as the host organization. The volume also includes several relevant papers not presented at the conference. Copies, at \$4 each, can be ordered from the Superintendent of Documents, US Government Printing Office, Washington 25, D. C.

The AEC has also published the *Proceedings of the Symposium on Sodium Reactors Technology* (TID-7623), a collection of papers presented at a meeting which took place during May 1961 in Lincoln, Neb. The publication includes papers on the status of reactor projects, development work and studies, and the French Rhapsodie Project, together with the transcript of a panel discussion on present and future reactors and postmeeting questions and answers. The 201-page volume is available from the Office of Technical Services, US Department of Commerce, Washington 25, D. C. for \$3.