

niques and machines in this field. The booklet is well produced, but the journalistic style and lack of critical appreciation of the history and implications of the subject will make it considerably less valuable than might otherwise have been the case. A particular shortcoming is the complete absence of any reference to more authoritative literature—the reader is directed to various manufacturers for further information. While this may be suitable for intending purchasers, it is unlikely to be helpful for the layman who wishes to gain a fuller understanding of the subject.

The latest issue of the *Philips Technical Review* (23, 1; October 1961) contains a description of a new digital computer *Pascal*. This machine, installed at the Philips Computing Centre at Eindhoven, has a well-balanced, parallel operation, arithmetic unit the speed of operation of which varies between 10 and 73 μ sec. for the various operations. The machine is a binary one with optional floating-point facilities. As may be imagined from its origin, it has a large magnetic core store as well as drums, tape and a plug-board. Input and output are in punched tape or cards and on magnetic tape and the speeds considerably exceed those of standard telegraph and business machine practice. The components used in the machine include valves, transistors and diodes since, in addition to being a useful calculator, the machine will provide information on component performance.

Technical Papers of the Sandia Corporation

THE bibliography *SCR-255* is a revision of *SCR-150* and consists of a cumulative numerical list of technical papers of the Sandia Corporation, Albuquerque, which are available to the public (Pp. 120. Albuquerque, New Mexico: Sandia Corporation. Obtainable from the Office of Technical Services, Department of Commerce, Washington 25, D.C., 1961. 2.50 dollars). The prices of printed or photographic and microfilm copies are included in most cases. The title list includes in addition a section on engineering drawing and specifications on sale through the United States Atomic Energy Commission's Engineering Materials Section at Oak Ridge. The contents of the bibliography is divided into eight sections, dealing with the reprint and monograph series; technical reports; development reports; technical memoranda, divided into annual series covering 1953–60 inclusive; manuscript releases; miscellaneous papers; and engineering materials. The Sandia Corporation is a prime contractor to the Atomic Energy Commission.

Plasma Physics

REPORT No. 18 of the Danish Atomic Energy Commission Research Establishment, Risø, contains the essential part of the material presented in the form of lectures or at the seminars during the international summer school on plasma physics held there during August 1–12, 1960 (Pp. viii+645. Risø, Roskilde: Danish Atomic Energy Commission Research Establishment, 1961. 60 D. Kr.). The lecturers were distinguished scientists from Denmark, France, Germany, The Netherlands, United States of America and Great Britain. The director was Dr. M. N. Rosenbluth (General Atomic, San Diego, California) and 130 students from twenty-four countries attended. The contents of the report, compiled by C. F. Wandel (Risø Establishment), consist of the short general introduction to plasma physics given by the director, followed by thirty-six articles grouped under the headings: single-particle motion, magnetohydro-

dynamics, fundamental equations, stability, relaxation, radiation, thermonuclear aspects, pinch and shock apparatus, concepts covering the stellarator and the mirror machine, and plasma waves and diagnostics. Not all the articles are in the form of lectures; some are reprints of published papers. The standard of the lectures, though representing a good introduction to and clear statement of the basic principles of plasma physics, nevertheless is somewhat more advanced than, for example, Lyman Spitzer's book. The report should prove an admirable text for postgraduate students and research workers who want to pursue an advanced course in plasma physics before proceeding to tackle the latest publications on the subject.

British Chemicals and their Manufacturers

THE Association of British Chemical Manufacturers has recently issued a guide, *British Chemicals and their Manufacturers*, which supplies information on all chemical products made by its members (Pp. 219. London: Association of British Chemical Manufacturers, 1961). The booklet is far more than a guide, and will be invaluable as a reference book to purchasers and producers alike. It will certainly prove to be indispensable in all academic and industrial research departments throughout the United Kingdom. The booklet consists essentially of five sections including the grouping of chemical industries, a directory of members of the Association, classified lists of British chemical products (with a special section on indicators and microscopical stains), lists of proprietary and trade names and proprietary and trade marks. The information is in each case presented in the clearest possible way. The first section provides information on the nature of the products, that is, their grade, whether heavy or fine, their origin, for example coal-tar distillation products, and their type such as dyestuffs, explosives, fats, glycerine, greases, soaps, etc., and those suitable for pest control. The directory, besides giving the name and address of members, also supplies telegraphic addresses, telephone and telex numbers. All in all, 366 industries are listed, and supplemented by a list of affiliated associations. Products are listed under their chemical names, and coded references give means of tracing the producer. In each case it is indicated whether the chemicals are of commercial grade or fine, pharmaceutical, pure, analytical and similar grades. The lists of proprietary and trade names will certainly be of great assistance to all editors who have to decide what is, and what is not, a registered trade name, and hence what should have quotation marks.

Autonomic Nervous System and the Occurrence of Visceral Lesions

Hiroshi Itoh, Teizo Kasahara, Kazuo Amano, Koh Okamoto and Samon Tanabe, of the Department of Pharmacology, Yokohama University School of Medicine, have shown histologically that a chronic chemical stimulation on a defined region of the skin produced lesions in both renal cortices (*Yokohama Med. Bull.*, 12, No. 3; June 1961). They have now followed the development of these lesions by functional examinations over a period of four months. The state of intrarenal circulation was investigated to determine the pathogenesis of the lesions, and the renal function was examined in several ways. The test for albuminuria and Volhard's test proved to be positive, but disorders of renal function could not be detected by other methods. Albuminuria was con-