great pity that more standard textbooks are not written in this attractive style.

Although originally intended for final year undergraduates, much of the material could be absorbed by second year students and would form an excellent introduction to third year studies, because the material is so clearly presented. The author suggests sections of the book which might be used as a short course.

E. R. LAITHWAITE

ELECTRICAL TEXT

Electrical Technology

By Edward Hughes. Third edition. Pp. xvii+709. (London: Longmans, Green and Co., Ltd., 1967.) 25s. paper; 35s. cased.

It is difficult to say immediately why *Electrical Technology* should be a depressing book. The exposition is lucid, the printing and layout clear, and although in a book of this size there must be some misprints they are not obvious. The selection of questions, too, is exactly right for passing the examinations of the Ordinary National Certificate. Perhaps it is the line drawings which make it look older than its first edition of 1960. Marconi himself would have recognized the valve on page 517, and the drawings in general have an Edwardian look. But, of course, books are expensive to make and the book is good value at 35s. Any book aimed at a particular examination has the limitations of the syllabus and, though this has recently been changed (hence this third edition), it remains out of date. Although it is nice to see an electronics section, thermionic valves play too big a part, while the transistor section is rudimentary and there is no hint of digital methods. Authors have no control over the syllabus of the examinations for which their books are used, and publishers often feel that extraneous material adds to the printing cost without enhancing sales. I wonder whether the omission of current research work, such as that on linear motors or direct current machines without commutators, really diminishes the cost of a book by a significant amount. Its omission deprives the inquiring student of a sense of progress and excitement in his subject.

L. MOLYNEUX

HETEROCYCLIC ADVANCES

Advances in Heterocyclic Chemistry, Vol. 7

Edited by A. R. Katritzky and A. J. Boulton. Pp. xiv+511. (New York: Academic Press, Inc.; London: Academic Press, Inc. (London), Ltd., 1966.) 176s.

Advances in Heterocyclic Chemistry, Vol. 8

Edited by A. R. Katritzky and A. J. Boulton. Pp. xiv+404. (New York: Academic Press, Inc.; London: Academic Press, Inc. (London), Ltd., 1967.) 152s.

THE latest two volumes of this semi-annual publication fully maintain the standards established during the past four years, with a selection of timely reviews on both general and specialist aspects of the subject. No one, however Philistine, can fail to find interest in at least some of the material, while to the research worker active in heterocyclic chemistry this series must be an important part of his library.

The seventh volume includes an invaluable and comprehensive review of more recent aspects of the chemistry of furans, tailored to act as a supplement to existing publications. The mass spectrometry of simple heterocycles is also summarized briefly in a chapter which is mainly devoted to the mass spectra of alkaloids. Methods available for the halogenation of heterocycles are discussed

in practical as well as mechanistic terms and the influence of reaction conditions, catalysts or modern halogenating reagents on the orientation of the product is summarized in tabular form. The mechanistic complexities of the process are also underlined.

Not the least attractive contribution to this volume is a review of reviews on heterocyclic systems. This systematic compilation of references to recent books, reviews and articles spans the entire range of heterocycles together with related natural products, drugs and pigments. This most valuable source of information will be widely used and widely appreciated. Of less general interest are chapters on diquinolyl-methanes, a 'recent advances' review of 1,3,4-oxadiazole chemistry and an extensive account of the chemical and spectroscopic features of the quasi-aromatic 1,2 and 1,3-dithiolium salts.

On the whole, the eighth volume in the series will be appreciated by specialists more than by general readers. A chapter on the formation and behaviour of cyclic peroxides (which are formally heterocycles) includes the process of ozonolysis, and will be of more general interest. I was also captivated by an exhaustive survey of thio-, thia- and thio-thia-pyrones (α and β) which reviews their preparation and properties (chemical and spectroscopic) and the inter-relation of structure and properties. Equally interesting and equally comprehensive is an account of the chemistry of indoxazenes and anthranils, that is, the benzo-analogues of isoxazole. This volume also contains shorter reviews of the Claisen rearrangement in *N*-heterocycles, heterocyclic diazo-compounds and the Hilbert-Johnson reaction. The fundamental chemistry of the phenoxazine nucleus, the parent system of the actinomycin antibiotics, is also reviewed, and a thorough painstaking survey of 1,2, 1,3 and 1,4-diazepines provides the first English account of these systems.

G. L. BUCHANAN

ROTATORY DISPERSION IN BONN

Optical Rotatory Dispersion and Circular Dichroism in Organic Chemistry

Including Applications from Inorganic Chemistry and Biochemistry. (Proceedings of a NATO Summer School held at Bonn, 24 Sept.-1 Oct., 1965.) Pp. xvi+416. (London: Heyden and Son, Ltd., 1967. Distributed in the USA by Sadtler Research Laboratories, Inc., Philadelphia.) 96s.; \$13.50.

IN the summer of 1965 Dr Günther Sztatzke organized a NATO Summer School at Bonn on optical rotatory dispersion and circular dichroism. The present handsome volume, which he edited, emerges as a substantial result of a most enjoyable meeting. There are seventeen contributors and twenty-three chapters and, happily, the intermittent maelstrom of discussion has not been put on permanent record.

One of the aims of the meeting was to introduce the subject matter to chemists unfamiliar with it. Its success in this respect is reflected in the proceedings, a notable achievement being the variety of approaches, summed up by experts in the field, offered to the student. Moreover, the treatment is balanced in the sense that, although the bulk of the material refers to organic chemistry, there are substantial sections on inorganic and biological aspects. After general introductory chapters by P. Crabbé and by C. Djerassi, the theoretical background is outlined first by A. Moscowitz and then by S. F. Mason, who also has a chapter on inorganic applications. So, too, does F. Woldbye who, for his second barrel, has a useful section on instrumentation. Several contributors discuss the relative merits of ORD and CD, and P. Crabbé devotes a chapter to this: not surprisingly, it is best to have both facilities. But overall one gets the impression—