

Proceedings of the Rehovoth Conference on Nuclear Structure held at the Weizmann Institute of Science, Rehovoth

September 8-14, 1957, under the auspices of the International Union of Pure and Applied Physics (IUPAP). Edited by Dr. H. J. Lipkin. (Series in Physics.) Pp. xvi+614. (Amsterdam: North-Holland Publishing Company; New York: Interscience Publishers, Inc., 1958.) 45 guilders.

THE Rehovoth conference of September 1957 will long be remembered by many who attended it, if only because it was their first opportunity to visit the young and fascinating State of Israel. Apart from that, the conference itself marks a certain stage of development of nuclear physics, a stage at which one feels that a qualitative and even semi-quantitative understanding of the structure of complex nuclei has been reached, and one beyond which must inevitably follow a period of consolidation. There is, in fact, some justification for the sentiment, sometimes expressed, that nothing much has happened in low-energy nuclear physics since the Rehovoth conference. There is, therefore, every justification for the appearance in print of the Proceedings of the conference provided in this handsome volume. The editor has been to great trouble to collate and edit the various communications, long and short, and has even included some carefully edited discussion. The sessions dealt with the shell model and the collective model and their foundations, group-theoretical methods in nuclear spectroscopy (including a beautiful introduction to the concept of seniority by Prof. Racah, who has contributed so much to the techniques of theoretical nuclear physics), electromagnetic properties of nuclei, beta-decay and parity violation, angular correlations in external fields, the instruments of nuclear spectroscopy, and the measurement of short life-times. A final section of the volume includes the *Daily Bulletin* of the Conference, which parodied and commented upon the actual proceedings with such delightful wit. In this permanent record of a memorable occasion the publishers have maintained their customary high standards of printing and presentation.

B. H. FLOWERS

Physical and Azeotropic Data

Hydrocarbons and Sulphur Compounds boiling below 200°C. By G. Claxton. Pp. v+146. (London: The National Benzole and Allied Products Association (N.B.A.), 1958.) 42s.

THE first part of this book gives the boiling points and densities of nearly 1,450 hydrocarbons and 190 organic sulphur compounds, together with the refractive indices of most of the substances listed and, in a few cases, melting points.

The second part describes the behaviour on boiling of about 1,000 binary, 90 ternary and three quaternary mixtures, azeotropic and otherwise. One component of every mixture is selected from twelve hydrocarbons and two sulphur compounds which are main constituents or impurities in coal tar benzoles. It is surprising, however, to find the benzene/ethanol azeotrope omitted from the list.

The first nineteen pages comprise a detailed explanation of the unusual system of nomenclature and classification used in the tables. These pages must be given careful study before the tables can be used, and the reader is not assisted by the incorrect printing of the four structural formulæ in Figs. 4 and 6, pp. 10-11. I would have preferred to see the

standard nomenclature of the Chemical Society used in the book; the system is already widely known and leads generally to less cumbersome names than does that favoured by the author, and the reader would be spared the trouble of learning another system for which he will find no other use.

A few misprints occur, but the book should prove useful to all who use distillation for analytical or preparative separations and do not wish to use a more comprehensive work such as L. H. Horsley's "Azeotropic Data".

B. A. ROSE

The True Book about Insects

By John Clegg. (True Book Series.) Pp. 144. (London: Frederick Muller, Ltd., 1957.) 7s. 6d. net.

THIS is not another book on identification, but one bringing together information—often to be found only in specialist or out-of-the-way works—on many of the fascinating aspects of insect life.

It describes briefly the general structure of insects and how they grow, with chapters on flight, respiration, the senses of sight, smell and hearing, on feeding, colouring and camouflage. There are interesting accounts of such subjects as plant galls, with life-histories of some of the insects concerned; life in water, with its special problems of breathing and movement; the nuisance to man caused by insects which feed on his crops or transmit diseases, and the remarkable ways of the social bees, wasps, ants and termites. A chapter is included on the use of insecticides in the struggle against pests, with mention of some of the ventures in biological control. Illustrations are good line drawings, and there is a short list of books for further reference.

The author has chosen examples for his text from well-known insects from overseas as well as Britain, and his simply written and enthusiastic account will make a good introduction for the young student of entomology.

B. D. MORETON

Perkin Centenary—London

100 Years of Synthetic Dye-stuffs. (Supplement No. 1 to *Tetrahedron*.) Pp. xii+136+8 plates. (London and New York: Pergamon Press, 1958.) 42s. net.

THIS book, to which Sir Robert Robinson contributes a foreword, provides a permanent record of the proceedings of the Perkin centenary celebrations. Besides the four Perkin centenary lectures, by Prof. John Read, Mr. C. Paine, Mr. J. G. Evans, and Sir Alexander Todd, it includes the speeches made at the Perkin banquet, details of the committees which planned and organized the celebrations, and the final financial report of the Perkin Centenary Fund, with a list of contributors to it. There are some interesting plates of Perkin himself, the Royal College of Chemistry, Hofmann and his students and the Greenford Green works. Prof. J. Read has put us further in his debt by appending to his own vivid survey of the life and work of Perkin references to some other papers on Perkin published at the time of the centenary or afterwards. The completeness thus given to the volume is a further reason for regretting that, while its production is worthy of such a notable event, the volume has not been produced in a style which would place it within the reach of a much wider range of chemists and general readers to whom its present price may be prohibitive.

R. BRIGHTMAN