Book Reviews

Works intended for notice in this column should be sent direct to the Editor (A. J. C. Wilson, Department of Physics, University College, Cathays Park, Cardiff, Great Britain). As far as practicable books will be reviewed in a country different from that of publication.

Clays and clay minerals. Vol. 10.

Ed. by ADA SWINEFORD and others. Pp. xii+509. Oxford: Pergamon Press, 1963. Price £5·5·0.

This book, the proceedings of the tenth National Clay Conference on Clays and Clay Minerals held at Austin, Texas in October, 1961, contains thirty-nine papers given at the conference and one paper read at the ninth conference. The papers cover a very wide range of topics, the only common feature being clays. The papers are grouped under the headings, Symposium on Bentonites and Texas Uranium Deposits, Symposium on Occurrence and Origin of Vermiculite, Symposium on Organic-Clay Complexes, Symposium on Industrial Applications and so-called 'General Sessions.' The volume is completed by an index and an appendix giving an account of the history and future of the National Clay Conference. The inclusion in bold type of the full titles of papers in the index does not add to its value. The arrangement of these titles alphabetically leads to entries such as 'An improved pretreatment for mineralogical analysis of samples containing organic matter' under the letter I and 'Effect of radiation damage on mullite formation in kaolinite' under E. Apart from their uselessness as references these entries merely repeat the contents of the book. Also noticed in the index were a number of misprints, anthrophyllite for anthophyllite, fentonite for bentonite, agrillaceous for argillaceous, Early for Earley, hudration for hydration. This contrasts with the rest of the book which is well produced and remarkably free of errors.

In a review of the proceedings of the ninth conference (*Acta Cryst.*, **16**, 235) the complaint was made that the interval of nearly two years between the conference and the publication of the proceedings was rather long. The editor and the printers are to be congratulated for reducing this to nineteen months for this volume.

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Information storage and retrieval (including mechanical translation).

Edited by J. FARRADANE. Oxford: Pergamon Press. Published quarterly. Price for libraries *etc.* £10 ($30) per year; for personal subscribers £5 ($15) per year.

Volume 1, No. 1, of this international journal contains six papers, one by the Editor on 'Relational Indexing and Classification in the Light of Recent Experimental Work in Psychology'; three, apparently of Russian origin, on problems concerned with indexing and translation in chemistry, and two on mechanical translation. The place of work of the authors is given only for one paper.

The new journal is well produced and well printed, and there is undoubtedly a need for some central publication dealing with the technical side of information retrieval. The papers in the first issue are all in English, but French, German and Italian are also acceptable languages. It is perhaps unfair to judge prices from a single issue, but a rough count suggests that the price for 10,000 words is over $1·50, which is considerably in excess of that typical for journals in the physical sciences.

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Reports on progress in physics. Vol. XXV (1962).

Executive editor A. S. STICKLAND. Pp. iv+529. London: The Institute of Physics and The Physical Society. 1962. Price £4·4·0.

About one quarter of the contributions to this volume are of immediate interest to the crystallographer or solid state physicist. N. F. Mott discusses in concentrated form some aspects of the quantum theory of cohesive forces in metals and alloys, particularly those which do not require heavy numerical computation. After a brief survey of the general theory of bonding in solids, the article considers the nature of the binding in the various types of metals and alloys, including the transition metals, but excluding the rare earths. A separate chapter is devoted to the question whether the magnetic electrons in iron are in 'bound states' or not.

A. J. E. Boyle and H. E. Hall contribute a most timely article on the Mössbauer effect. It is well balanced between experiment and theory and contains a detailed bibliography. A full account is given of the application to solid state problems, *e.g.* lattice dynamics and magnetic problems. The article is likely to become a standard introduction to the application of the Mössbauer effect to solid state and nuclear physics problems.

K. Furukawa reviews the studies of the radial distribution curves of liquids by diffraction methods. The emphasis is on experimental and computational techniques as well as on the critical presentation of experimental results. An extensive bibliography is included. The theories of liquid structures are touched upon only briefly.

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