

International Union of Crystallography

Molecular Structures and Dimensions Guide to the Literature 1935-76

A special volume, *Guide to the Literature 1935-76, Organic and Organometallic Crystal Structures* (303 × 225 mm, 660 pp. + xxiii), has recently been published for the International Union of Crystallography and the Cambridge Crystallographic Data Centre by Bohn, Scheltema & Holkema.

The *Guide* presents a comprehensive set of six indexes to the 15 933 organic, organometallic and metal complex structures published during the 41-year period covered by *MSD Bibliographic Volumes 1-8*. The indexes are:

Compound Name Index (organic): a permuted KWIC index ordered alphabetically by keyword. The most significant parts of each name are displayed with maximum retention of context. There are 21 238 index entries for 11 116 names.

Compound Name Index (organometallics and metal complexes): constructed as above but with the 12 897 index entries grouped under 54 metal-name sub-headings.

Molecular Formula Index: conventional C,H-ordered listing.

Permuted Formula Index: display of rarer elements using

a permuted element-in-context layout. The 7842 entries are grouped under 70 rare-element subheadings.

Author Index: 43 039 citations to 10 362 authors.

Literature Index: covering 260 primary sources.

The volume provides bibliographic search facilities based on chemical names or name fragments, formulae, elements and authors names. The indexes yield entry numbers which key into the *MSD Bibliographies 1-8*, where complete information is listed, or into the Literature Index of the *Guide* for rapid retrieval of references.

Readers who wish to keep the *Guide* up-to-date are advised to place a standing order for future annual volumes. Volume 9 of the *Bibliography* is scheduled for publication in July 1978 and will contain the above indexes for the period 1976-1977, together with the usual classified listing.

The *Guide* is available from Bohn, Scheltema & Holkema, Emmalaan 27, Utrecht, The Netherlands, and Polycrystal Book Service, PO Box 11567, Pittsburgh, Pa. 15238, USA. The cost is 150 Netherlands guilders (about US \$66 at current rates of exchange), and 110 Netherlands guilders (about US \$49) for personal copies.

Earlier volumes are available at much reduced prices as follows: Sets of Volumes 1-8, 225 Netherlands guilders (about US \$99); Volume A1, 80 Netherlands guilders (about US \$36); a 50% reduction on the regular price for any three volumes of the bibliographic series ordered together.

Book Review

Works intended for notice in this column should be sent direct to the Book-Review Editor (J. H. Robertson, School of Chemistry, University of Leeds, Leeds LS2 9JT, England). As far as practicable books will be reviewed in a country different from that of publication.

Structure determination by X-ray crystallography. By M. F. C. LADD and R. A. PALMER. Pp. xvi + 393. New York and London: Plenum, 1977. Price \$35.40, £18.59.

This is one of the most recent texts intended to introduce the advanced undergraduate and beginning graduate student to X-ray crystallography. After two chapters on crystal geometry and symmetry, the sequence of topics is that encountered in a typical structure determination: preliminary optical and photographic examination, intensity measurements, the Patterson function, direct methods, least-squares refinement, and description of the structure. In this respect the book is similar to several earlier texts, so that it is necessary to summarize the chief differences in emphasis.

The general treatment is less formal and mathematical than that in competing texts, and relies more extensively on actual examples, which are described in detail. The reciprocal-lattice concept is used only sparingly. There is only brief mention of experimental methods: the discussion of the precession method consists of one paragraph and two figures; the four-circle diffractometer is allotted two paragraphs and a figure, in the Appendix. On the other hand, indexing of oscillation photographs is described in detail. The

determination of simple structures by Patterson and heavy-atom methods is described fully, with many clarifying examples. The final chapter works through two actual crystal structure determinations, both of organic substances in space group $P2_1/c$, and in the process develops techniques, such as indexing Weissenberg photographs, that were merely sketched in the chapters on methods.

Each chapter ends with references to standard texts like Stout & Jensen [*X-ray Structure Determination* (1968), New York: Macmillan] and Woolfson [*Introduction to X-ray Crystallography* (1970), Cambridge Univ. Press] and to *International Tables for X-ray Crystallography*. Problems follow each chapter, and solutions are worked out at the end of the book. The index seems to be thorough.

The book is carefully produced, fully illustrated, and carefully proof-read. However, for 14% more than the price of this book, one could buy the first two texts mentioned above, and have much more information available.

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