The third, and by far the largest, part is devoted to structural results of X-ray diffraction. In this part, two contributors discuss organic structures (631 references), two describe the structures of globular proteins (a surprisingly large total of 40 high-resolution structures and 146 references) and four contributors deal with inorganic structures (1228 references). Many of the structures are illustrated, a few by stereoscopic views, and there are many informative tabulations of dimensions of related structures. In the sections on inorganic compounds one chapter is devoted to each group in the periodic table but the chapter which includes silicon does not discuss silicate structures containing infinite networks of SiO_4 tetrahedra. There is also a chapter on mixed-cluster complexes.

Although the price is rather high it is reasonable when one considers the wealth of information that the volume contains and the tremendous effort which must have been put into compiling it. The time can be foreseen when this effort will become unnecessary, when the publication of numerical data for organic and organometallic structures by the Crystallographic Data Centre at Cambridge in the series *Molecular Structures and Dimensions* comes up to date and when there is also a comparable publication for inorganic structures. Meanwhile, the volumes in the present series will serve a very useful purpose in surveying briefly the whole structural field and in bringing together information about related compounds. Perhaps the best commendation is that, in spite of attempting to skip through the book rapidly, the reviewer continually found himself attracted to reading paragraphs or larger sections in detail.

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Molecular structure and dimensions. Edited by OLGA KENNARD and DAVID G. WATSON. Utrecht: Oosthoek, 1970. Vol. 1: pp. xxiii + 489; price £6·50, (personal) £4·50. Vol. 2: pp. xxiii + 344; price £5·00, (personal) £3·75. Vol. 3: pp. xxiii + 490; price £7·75, (personal) £5·50. Vol. 4: pp. xiii + 465; price £7·75, (personal) £5·50.

Among the different areas covered by crystallography, crystal structure analysis is certainly one of the most important not only for crystallographers but also for researchers working in other fields of science such as chemistry, physics and biology. This is because diffraction methods are the only ones which give a direct picture of molecular structures. The enormous increase in the number of crystal structure analyses, particularly now that automation of data collecting, of computing and of application of direct methods is available, makes it important that structural information should be systematically collected, classified and made available to all scientists interested in molecular structures. The work of the Crystallographic Data Centre at Cambridge in this respect is certainly of outstanding importance by virtue of both the organization and the comprehensiveness of information. It can be summarized under the following classifications: (i) classified bibliography, (ii) interatomic distances (bond lengths, bond angles, torsion angles, stereo diagrams, *etc.*), (iii) structural numerical data (unit-cell data, atomic coordinates, bond lengths, *etc.*), (iv) computer services (bibliographic file, numerical data file), in which the organic and organometallic (including metal complexes) crystal structures, published from 1960 onwards, are considered.

The four volumes dealing with bibliography are therefore only part of the whole system and their function is better understood in conjunction with the other parts, particularly with the numerical tables, the first volume of which (Vol. A1, *Interatomic Distances* 1960–1965, *Organic and Organometallic Crystal Structures*: this volume gives data for about 1300 structures) has recently been published.

The first two volumes of the bibliographic series, covering the period 1935–1969, have already been reviewed by C. K. Prout [*Acta Cryst.* (1972). B**28**, 2305] and his comments on them are supported by the present reviewer. Volumes 3 and 4 deal with crystal structures published in the periods 1969–1971 and 1971–1972 respectively, but a number of structures published prior to 1969 and omitted from the previous volumes are also included. Entries are arranged in 86 chemical classes and there are three cumulative indexes in each volume: formula, transition-metal and author indexes, which also include the references to entries given in the previous volumes. The classification, even if sometimes questionable, being frequently a matter of personal opinion, is particularly useful not only for retrieving the particular works the reader is interested in, but also to give a general view of what has been of recent interest in structural research in many fields of chemistry. Not only crystallographers, but also organic and complex chemists must feel deeply indebted to the Crystallographic Data Centre at Cambridge for this work.

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Кристаллография и кристаллохимия. Выпуск 2. Ученые записки Ленинградского Университета № 377. (Серия геологических наук, выпуск 14.) [Crystallography and crystal chemistry. Part 2. Scientific papers of Leningrad State University No. 377. (Geological science series, part 14.)] Pp. 156, Figs. 66, Tables 22. Leningrad Univ. Press, 1973. Price not given.

The requirement that candidates for research degrees should have published papers has led to the proliferation of periodicals issued by Soviet universities for that purpose. The present book contains two dozen papers, chiefly on growth phenomena in inorganic salts, by V. A. Frank-Kamenetskii, his colleagues and students at the Department of Crystallography of the Geological Faculty of Leningrad

University. Choosing one paper as an example we have an account by a Vietnamese student and his professor of the three phases in the system $MgSO_4.CuSO_4.H_2O$ at 25°C describing the optical properties at a range of compositions. This is a good basis but when the same problem was proposed as a project in the reviewer's department the question to be studied by X-ray methods would have been the structural disorder associated with solid solution, particularly near transitions of phase. In general the accent is on traditional physico-chemical methods plus simple X-ray spacing measurements.

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