

I. Metals (edited by N. C. Baenziger), pp. 1-124; II. Inorganic compounds (edited by J. Wyart), pp. 125-367; III. Organic compounds (edited by J. Monteath Robertson), pp. 369-543. The sections are followed by Journal Abbreviations, Subject Index, Formula Index, Index of Carbon Compounds and Author Index.

As is pointed out in the introduction, Structure Reports are not intended to be abstracts in the ordinary sense, their aim is to present detailed information relating only to the fine structure of substances as revealed by the X-rays. In a remarkably clear manner these reports present the relevant information and numerical data, illustrated where necessary by excellent diagrams. The usual data include unit-cell dimensions, space-groups, atomic positions and interatomic distances. Other information, such as chemical and optical data, X-ray spectra diagrams, spacings and intensities, with rare exceptions, are not given. A few minor points of criticism may be mentioned. Thus in the Metals Section the items are arranged alphabetically and in the order of the first metal in the case of alloys. This means that for example in the case of a system of Al, B, Ti, the entry is only under Al and there is no entry of it in the general index. This omission is deliberate. A second point of criticism is the time gap between the publications (1951) and the reports (1957). This is certainly no fault of the editors or abstractors; the cause of it lies much deeper in the organization, or rather lack of organization of scientific information.

The arrangement of items in the section of inorganic compounds is into elements, hydrides, halides, and so on. This section contains a large number of minerals and mineralogists would no doubt welcome certain additional information relating to natural minerals, such as locality, mode of occurrence and paragenesis, which are not always provided, and also certain chemical peculiarities for minerals the composition of which cannot be adequately represented by a formula. A reference to the 'Mineralogical Abstracts' might also be made. Structural classification may also be recommended for the arrangement of silicate minerals, if not for all minerals if possible. The arrangement in the section of organic compounds is roughly into aliphatic compounds, aromatic compounds and biological products. Within these groups the arrangement is varied, but any compound can be found rapidly in the 'formula index' or the 'index of carbon compounds' this last being based primarily on the increasing number of carbon (from 1 to 63) and secondarily on the increasing number of hydrogen atoms (from 1 to 124).

The printing and the diagrams (binary and ternary phase diagrams, various types of structure diagrams and Fourier projections) are excellent. This volume will add to the magnificent record of this collection and like the thirteen predecessors, will be of invaluable help to scientific workers of all nations. This help would be even greater if a less prohibitive price brought it within reach of more potential users.

S. I. TOMKIEFF

*University of Durham
King's College
Newcastle upon Tyne, 1
England*

Tables et Abaques. By J. ROSE. Pp. 141. Paris: Centre National de la Recherche Scientifique, Service des Publications 1957. Price: 1,500 Francs.

The full title of these Tables is, in translation, 'Tables for the analysis of X-ray diagrams, and monograms for the preparation of bent crystal monochromators'. 118 of the 141 pages contain one 11-column table permitting to determine from a rotation or oscillation diagram about a zone axis the identity period along this direction from the measured distance δ of corresponding upper and lower layer lines. The same table can be used for obtaining the d -values for any set of reflecting planes of a powder diagram. In both cases the table is good for several experimental arrangements and the values are listed for Cu, Ni, Co, Fe, Cr, and Mo $K\alpha$ -wave-lengths.

A short and handy Table II lists the mass absorption coefficients of most of the elements He-U for the same six wave-lengths plus Mn- and Zn- $K\alpha$ and, on the opposite page, four-figure values of the function e^{-x} from 0.00 to 9.99 in steps of 0.01. Five full-page nomograms give the adjustment data of the X-ray tube and second slit for bent Quartz crystal monochromators as a function of the curvature of the reflecting net planes, for the Johann or the Johannsen type monochromator.

The handy volume is based on laboratory needs and should prove very useful wherever rotation, oscillation and powder diagrams are taken.

P. P. EWALD

*Polytechnic Institute of Brooklyn
Brooklyn 1, N.Y., U.S.A.*

Growth of Crystals (Reports at the First (Soviet) Conference on Crystal Growth, 5-10 March 1956). Pp. 294. New York: Consultants Bureau, Inc. New York 11, N. Y. 1958. Price \$15.00.

The Russian report on the conference on Crystal Growth appeared just in time for its presentation, in limited numbers, by members of the Russian delegation at the Montreal Assembly of IUCryst. The preparation of the English translation will be welcomed by many crystallographers as an easy way of learning of the proceedings at this conference. Even if the papers do not contain any fundamental, or even spectacular advance, some of the details of the three sections, viz: Theory, Experimental Research, Apparatus and Methods of growing Crystals will be of interest.

The translation is fluent and, as far as checked, a slightly condensed rendering of the sense rather than a literal translation. That the figures accompanying one of the articles cannot be seen stereoscopically is no fault of the American publishers, since also in the Russian copy the reproduction is not sharp enough to give a three-dimensional impression.

P. P. EWALD

*Polytechnic Institute of Brooklyn
Brooklyn 1, N.Y., U.S.A.*