

for such important considerations as land use and settlement get relatively meager treatment.

However, the book has much charm and interest, even practical value for those interested in our own peat lands, such as the Everglades of Florida or the Sacramento-San Joaquin delta of California. Astbury has a fascinating theme—man's mighty struggle against water and the conversion of a marshy waste into the major tract of first-class arable land in the British Isles. Agriculturalists, reclaimers, geographers, and others with like interests will derive much instruction and diversion from this book.

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Soviet Research in Crystallography.

Chemistry Collection No. 5, vols. 1 and 2. English translation. Consultants Bureau, New York, 1958. 618 pp. vol. 1, \$30; vol. 2, \$100; set, \$115.

These two volumes contain selected papers from Russian journals translated into English, reproduced by photo-offset, and bound in paper. In spite of the title and supposed aim of this publication, it contains little of interest to the crystallographer. Volume 1 contains 60 papers in the general field of inorganic chemistry; volume 2, 33 papers dealing with a miscellaneous collection of topics, including x-ray spectrography, structure of glasses, and crystal growth.

It is of great interest to those of us who have no way to penetrate the language barrier to be able to read through these Russian papers in the way that we read through the Western journals in the library. It is a pleasure to discover papers such as that by D. A. Petrov and N. D. Nagoskaya on the phase diagram of the Al-Cu-Mg-Si system—a strikingly comprehensive and beautiful study of an exceedingly complex system. It is noticeable, however, that many techniques which are regarded as routine in this country are not made use of, apparently, in Russian laboratories: for example, x-ray methods are only rarely used in phase-diagram studies, and counter methods are not used at all in x-ray spectrography. One paper on heteropoly-molybdate complexes displays a great confusion about the structural chemistry of these compounds—a confusion which is shared by most American chemists.

The main points of criticism of these volumes must be directed toward the editorial work, which leaves a great deal to be desired. The editors apparently have no concept at all of the meaning of the term *crystallography* to scientists, espe-

cially crystallographers. The bulk of volume 1 is devoted to phase-diagram studies of such systems as $\text{CuSO}_4\text{—H}_2\text{SO}_4\text{—H}_2\text{O}$; $\text{LiCl—BeCl}_2\text{—H}_2\text{O}$; $\text{H}_3\text{BO}_3\text{—KNO}_3\text{—H}_2\text{O}$; $\text{KNO}_3\text{—KCl—KBr}$; and $\text{K}_2\text{SO}_4\text{—K}_2\text{CrO}_4\text{—KNO}_3$, most of which depend on classical thermal methods. None of these papers can in any sense be classified under crystallography. Volume 2 does contain some articles of crystallographic interest, such as papers on the structure of polyamides of dipheic acid (by S. S. Spassky and M. A. Mikhailova), optical properties and structure of polyiodides (by D. A. Godina and G. P. Faerman), crystalline modifications of plumbic fluoride (by Ya. Sauka), and oxonium ion in crystal lattices of inorganic compounds (by N. V. Shishkin) and a series of papers by V. Kurbatov on "The nature of crystals," which discuss binding energies in various types of crystals. This volume also contains a series of papers of particular (although not crystallographic) interest on the techniques of x-ray spectrography, by E. E. Vainshtein and his colleagues. There are no papers at all on crystal structure analysis in the modern sense.

Obviously, the editors intended to present in these books merely a sampling of papers from the Russian journals in the period 1949–1955. The merit of such a project might well be discussed, but even if it is assumed to be worth while, the result is spoiled by a complete lack of judgment in the selection of papers. During the period covered, scores of papers of great crystallographic interest appeared in the Russian journals. Why were the works of such eminent crystallographers as G. S. Zhdanov, N. V. Belov, and A. I. Kitaigorodskii completely ignored? Crystallographers would have welcomed complete translations of their works on such important crystal structures as heavy metal thiocyanate complexes, diopside, and epidote; on contributions to the theory of structure determination; and on many other topics well known to Western scientists through abstracts. Such glaring negligence could only be a result of failure to seek the advice of anyone connected with the field of crystallography.

The quality of the translations cannot be properly judged by one who is not familiar with the Russian language, but the general intelligibility of the texts appears to be fairly good, although occasional awkward passages and phrases are evident. The origin of the papers is identified only by a system of code numbers, which indicate the journal and year but not the page numbers. The code numbers refer to some master translation file which presumably is available to the reader through services supplied by the publishers. References given in the papers

themselves are, of course, translated in the normal manner. The quality of reproduction is fair, but in the copy examined there are several missing or blank pages. One paper is reproduced twice. The standards of quality do not seriously impair the usefulness of the material presented (except where a page is missing), but they fall somewhat short of those set by a similar project sponsored by the American Institute of Physics.

Strangely, there is no explanatory information anywhere in the two volumes concerning this ambitious translation project. No mention is made of any of the editors responsible for the work. It can only be said that the volumes are valuable in that they will make available in useful form in the libraries some parts of the Russian scientific literature, but such an investment for the personal library will generally be out of the question.

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Discussions on Child Development. A

consideration of the biological, psychological, and cultural approaches to the understanding of human development and behavior. *Proceedings of the World Health Organization Study Group on the Psychobiological Development of the Child*: vol. III, third meeting, Geneva, 1955. J. M. Tanner and Bärbel Inhelder, Eds. International Universities Press, New York, 1958. 223 pp. \$5.

This volume continues the *Discussions on Child Development* series, of which the earlier two volumes were reviewed in the *Scientific Monthly* [84, 323 (1957)]. The sessions focused on the development of sex differences and of individuality or ego identity. As a basis for discussion of the first topic there were presentations by Margaret Mead on the "Childhood genesis of sex differences in behavior" and by Erik Erikson on "Sex differences in the play construction of twelve-year-old children." To introduce the second topic, presentations were made by Erik Erikson on "The syndrome of identity diffusion in adolescents and young adults" and on "The psychosocial development of children." In addition to the members of the study group, D. Buckle, Julian S. Huxley, and Raymond de Saussure participated in the discussions. The volume is a well-edited condensation of a week's discussion that moves forward at a lively pace.

But because the discussion moves freely without close contact with data, the reader who seeks quantified and verified statements will be disappointed. Even in the presentation of the mate-