

the physics of crystal growth'. The word 'elementary' in the title of the book refers especially to the absence (with the exception of the last three chapters) of complicated mathematical procedures; the mode of treatment throughout is elaborate and exhaustive. The subtitle perhaps conveys a truer picture of the scope and value of this work in its reference to the *fundamental* importance of the matter included.

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**Structure Reports for 1940–1941.** Edited by A. J. C. WILSON, N. C. BAENZIGER, J. M. BIJVOET and J. M. ROBERTSON. Pp. viii+384 with many figs. Published for the International Union of Crystallography. Utrecht: N. V. A. Oosthoek's Uitgevers Mij. 1956. Price 80 Dutch florins; \$21.50; £7.11s.0d.

When it was decided by the International Union of Crystallography to take up the work of reporting crystal-structure determinations, which had been so successfully started with the *Strukturbericht*, it was evident that the task would be formidable. The last volume of *Strukturbericht* was Vol. 7, covering the year 1939. The work on the *Structure Reports* began in 1949 and it was decided to give priority to a report on recent work, in order to avoid starting with a serious time lag. The interval was to be filled as soon as possible thereafter by working at the same time both backwards and forwards, but the magnitude of the gap and the very rapid increase of the number of structure determinations required a large effort of work. The first result was Vol. 11, which appeared in 1951 and covered the years 1947–1948. Then followed in order Vols. 12, 10, 13, 9 and now 8. With the last mentioned volume the gap is closed and the reports now cover the years 1940–1950.

In the present volume the standard of coverage and the clarity of description has been well maintained. As a consequence there is little to be said now that has not already been said about the preceding volumes. The Editors have again to be congratulated and thanked for their excellent work.

In the introduction it is stated that omissions noticed incidentally in the later issues of *Strukturbericht* have been remedied in this volume, but as no exhaustive search of the literature for 1939 and earlier years has been undertaken it is possible that these volumes may still contain some unnoticed errors and omissions.

Through generous support from different sources Vols. 10–13 could be published at prices substantially below the cost of production. The later volumes have been published without such support, and it may be remarked that the price of the present volume is considerable higher than that of its predecessor (Vol. 9), which contained a larger number of pages (but was thinner owing to a thinner kind of paper). The reviewer is convinced, however, that the present volume is well worth its price.

It is now intended to publish a cumulative index for 1940–1950, covering Vols. 8–13 inclusive. The usefulness of the *Structure Reports* will certainly be very much improved by such an index. One could perhaps add a wish that an index to *Strukturbericht* Vols. 5–7 could

also be prepared and published. There exists already an index to Vols. 1–4, incorporated in the index to Vols. 76–100 of the *Zeitschrift für Kristallographie*.

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**Прецизионное Опредегение Парапетров Згеиентапной Ячейки Кристаллов Симметрическим Методом.** By А. Ф. Иевинш и Я. К. Осол. [The Precision Determination of the Parameters of the Unit Cells of Crystals by the Asymmetrical Method. By A. F. Ievinš and J. K. Osol.] Pp. 150. Riga: Latvian Academy of Science. 1956. Price Rb. 7.90.

Precision determinations of cell constants from powder diagrams are nowadays generally made by the 'asymmetric method' which was developed by M. Straumanis and his co-worker A. F. Ievinš from 1933 onwards. It is characteristic for this method that the high-order and the low-order diffraction rings are recorded on an unbroken strip of film so as to eliminate many corrections which limit the accuracy of other methods where the ends of the film lie at the entrance or exit points of the primary ray.

The two originators of the method gave a detailed description of the instrumentation and of the methods of evaluation in a booklet of 104 pages, in German, which was published by J. Springer in Berlin in 1940. A reproduction of this book became available in 1948 as one of the war-time Edwards lithoprints.

The present book is essentially a translation of this book into Russian, although this is nowhere said and the name of Straumanis has been replaced on the title by that of Ievinš' present collaborator J. K. Osol. In fact, neither in the preface nor anywhere in the text does even the name of Straumanis appear. Only in the references can it be found, mainly in common authorship with Ievinš.

The discussion of the application of the method to powder diagrams, and its extension to rotation diagrams, using Weissenberg pictures for indexing purposes, follows closely the German edition. Most of the tables and figures are identical. Now and then paragraphs are slightly shortened and some papers by Russians are substituted for those of non-Russian authors. The geometry and algebra of the reciprocal lattice are discussed at greater length than before, and examples of precision determinations from rotation patterns of monoclinic and triclinic crystals have been added. The use of 'Neugrad' (i.e.  $\frac{1}{2}\pi = 100^\circ$ ) has not been taken over from the German edition. However, the present book does not show any improvement in experimental techniques, which remain the same as those described twenty years ago in the German work.

Since the book by Ievinš & Osol follows so closely the German book by Straumanis & Ievinš, the two books together may be useful to those Western readers who want to improve their reading of technical Russian by comparing the texts.

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