

gesättigtes Schwerbenzin. Es resultierten folgende elastische Konstanten für 22° C.:

$$c_{11} = 1,643 \times 10^{11}, \quad c_{12} = 0,433 \times 10^{11}, \quad c_{44} = 0,515 \times 10^{11} \text{ erg.cm.}^{-3}.$$

(Fehler bei c_{11} bzw. c_{12} und c_{44} unter 0,3% bzw. 2,5% und 1%).

Die von Ramachandran & Wooster erzielten Werte sind:

$$c_{11} = 1,5 \times 10^{11}, \quad c_{12} = 0,3 \times 10^{11}, \quad c_{44} = 0,7 \times 10^{11} \text{ erg.cm.}^{-3}.$$

Die Übereinstimmung ist befriedigend, wenngleich nicht ganz innerhalb der Fehlerschätzung von Ramachandran & Wooster.

References

- HAUSSÜHL, S. (1957). *Fortschr. Min.* **35**, 4.
 RAMACHANDRAN, G. N. & WOOSTER, W. A. (1951). *Acta Cryst.* **4**, 431.

Notes and News

Announcements and other items of crystallographic interest will be published under this heading at the discretion of the Editorial Board. Copy should be sent direct to the British Co-editor (R. C. Evans, Crystallographic Laboratory, Cavendish Laboratory, Cambridge, England).

Kristallografiya

A complete English translation of this journal is now available (see *Acta Cryst.* (1957), **10**, 608). The publication of contents lists in these columns is therefore discontinued.

The structure of the chromium sulphides

An error occurs in the above article by F. Jelinek (*Acta Cryst.* (1957), **10**, 620). On p. 628 the last two lines in the penultimate paragraph in the left-hand column should read 'and Fe_7S_8 , but to ferrimagnetism in Fe_7Se_8 (Okazaki & Hirakawa, 1956).'

Book Reviews

Works intended for notice in this column should be sent direct to the Editor (P. P. Ewald, Polytechnic Institute of Brooklyn, 99, Livingston Street, Brooklyn 1, N.Y., U.S.A.). As far as practicable books will be reviewed in a country different from that of publication.

Handbuch der Physik: Encyclopaedia of Physics. Band 32. Structural Research. Edited by S. FLÜGGE. Pp. vii+663 with 373 figs. Berlin; Göttingen; Heidelberg: Springer. 1957. Price DM. 144.00.

This volume of the *Encyclopedia of Physics* covers the principles and practice of structural research by diffraction of X-rays, electrons and neutrons in six articles by specialists in the field.

The first article, about 100 pages in length, is entitled 'Experimental methods for the determination of crystal structure by X-rays'. The authors are A. Guinier and G. von Eller.

Of the four sections, the first describes the different types of cameras used to record the diffraction patterns from single crystals and from powders, and a few pages are given over to the use of counter diffractometers. In the second section methods of intensity measurement are surveyed, and the corrections required to give values of $|F|^2$ from the X-ray intensities are outlined. An account of the theory and practice of crystal-structure analysis follows. It includes some very attractive illustrations of the use of von Eller's photographic method for the evaluation of two-dimensional Fourier series. This section is heavily biased in favour of analogue machines and makes no mention of high-speed electronic digital computers, with which the future of crystallographic com-

puting certainly lies. The last section is concerned with such topics as the determination of crystallinity and of the texture of solids, the identification of materials by X-ray methods, and the measurement of internal stresses in metals.

The authors have done very well in presenting such a readable survey of the more important applications of X-ray diffraction in a relatively small space. This article is in French.

The second article, by J. Bouman, is entitled 'Theoretical principles of structural research by X-rays', and extends over some 140 pages. The treatment is rather heavy in places, and this is not an article for the novice. From the elementary theory of diffraction and the analysis of simple structures the author proceeds to lattice theory and the properties of the reciprocal lattice. The present writers were pleased to find that the properties of Fourier transforms, and their importance for the theory of diffraction, were discussed at an early stage in this article, but felt that even more use could have been made of them. A section is devoted to the discussion of the symmetry of structures; a surprisingly full treatment is achieved in the space of some 20 pages. The topics dealt with next come under the heading of fundamental concepts in X-ray scattering, the most important being a discussion of dispersion. There follows a section devoted to diffraction by small crystals, a discussion of the dynamical theory, of extinction and of absorption, and of