



and it is prepared from sodium sulfide and acrylonitrile as described by Kost (1953). It is crystallized from benzene as transparent needle shaped crystals having a melting point of 26 °C.

Weissenberg and precession photographs, taken with Cu  $K\alpha$  radiation, have shown the unit cell to be orthorhombic with dimensions:

$$a = 17.72 \pm 0.05, b = 11.82 \pm 0.03, c = 7.29 \pm 0.02 \text{ \AA}$$

where  $c$  is parallel to the length of the needle.

The systematic absences observed indicate the space group  $Pccn$ .

The observed density of 1.24 g.cm.<sup>-3</sup> agrees with a value of 1.22 calculated for 8 formula units per unit cell.

No further work on this compound is contemplated.

### Reference

- KOST, A. N., LEBEDEV, I. A. & YASHUNSKII, V. G. (1953). *Vestnik Moskov. Univ.* 8, no. 3, Ser. Fiz.-Mat. i Estestven-Nauk no. 2, 111. [C.A. 3862g (1955)].

## Book Reviews

*Works intended for notice in this column should be sent direct to the Editor (A. J. C. Wilson, Department of Physics, University College, Cathays Park, Cardiff, Great Britain). As far as practicable books will be reviewed in a country different from that of publication.*

**Scientific Information in the Fields of Crystallography and Solid State Physics.** Edited by T. WATANABÉ and Y. TAKÉUCHI. Pp. viii + 131. Published by the Crystallographic Society of Japan, 1962. Copies obtainable from Dr Y. Takéuchi, *Mineralogical Institute, Faculty of Science, University of Tokyo, Hongo, Tokyo, Japan.* Price \$ 2.00.

The Crystallographic Society of Japan, taking advantage of the presence of the large number of crystallographers and physicists attending the International Conference on Magnetism and Crystallography in Kyoto at the end of September, organized a further conference on Scientific Information in the Fields of Crystallography and Solid State Physics at the Kwansei Gakuin University, Nishinomiya, on 3 and 4 October 1961. The volume under review contains the papers presented at this conference, some slightly revised, along with the discussion that followed them.

The conference began with an introductory lecture by Professor J. D. Bernal. In his unavoidable absence it was read on his behalf by Mrs Olga Kennard. His paper is so packed with ideas and suggestions that it is almost impossible to summarize; one salient point is that the field of crystallography, being young and fairly definitely delimited, is a good subject for experiment and development work in scientific communication and documentation. Specific needs still outstanding in the field of crystallography are a systematization and classification of structures, an information service for apparatus and techniques, both physical and mathematical, and reviews. A paper by Mrs H. L. Brownson stressed the desirability for a study of scientists' real documentation needs, since most of the studies so far made deal either with their felt needs or with their use of existing services, and neither is a true index of what should be provided. P. P. Ewald dealt with the origin of the *Strukturbericht*, and A. J. C. Wilson and Mrs Kennard with the activities of the International Union of Crystallography in the fields of documentation and the collection of crystallographic data respectively. W. Nowacki and Mrs G. Donnay gave accounts of work for the publication *Crystal Data*. There were

papers by W. L. Fink and by W. C. Bigelow and K. E. Beu on the activities of the Joint Committee on Chemical Analysis by Powder Diffraction Methods, and panel discussions on the A.S.T.M. Powder Data File and on *Crystal Data*.

It is impossible to give an account of all the papers presented, but mention should be made of descriptions of national and international documentation and information services, both general and specialized, by K. Hirayama, G. Waddington, H. Chihara, J. Wyart, H. O'Daniel, N. V. Belov, V. Hovi, Y. Nakamura, T. Watanabé, and D. P. Shoemaker. An amusing feature of the conference was a paper by Miss D. U. Mizoguchi on the difficulties of translation, particularly between Japanese and English.

Though it forms no part of the province of a book reviewer, perhaps one of those fortunate enough to attend the conference should mention the generous hospitality and efficient organization that was provided for the foreign visitors throughout their stay in Japan. I have not experienced anything like it at other conferences.

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**Methods of Experimental Physics. Volume 3: Molecular Physics.** Edited by DUDLEY WILLIAMS; editor of the series L. MARTON. Pp. xiv + 760. New York and London: Academic Press, 1962. Price 136s.

This is not, as might be thought from the title, a book for use in teaching practical classes. It concentrates on the general experimental methods that have been used to determine the sizes and shapes, the electric and magnetic properties, the internal energy levels, and the ionization and association energies of molecules. Only the brief appendix (15 pages) sounds in the spirit of the usual practical textbook.

The seven main chapters are on Molecular spectroscopy, Diffraction methods of molecular structure de-