

**L-Cystine hydrobromide**

The crystals were prepared by the same process as described for the hydrochloride and were found to be slightly deliquescent. They are not isomorphous with the hydrochloride. Here again the X-ray data suggests that the -S-S- bridges of the molecules lie across diad axes in the crystal.

**L-Lysine monohydrochloride dihydrate**

On account of the high solubility of the compound in water, crystals were obtained with some difficulty, and seeding was necessary to initiate the process. The crystals were quite stable and a good goniometric study was

possible which provided an accurate value of the monoclinic angle  $\beta$ .

In conclusion the author wishes to express his thanks to Prof. G. N. Ramachandran for his helpful guidance during the investigation. He is also grateful to the University of Madras for providing a studentship during the tenure of which this work was carried out.

**References**

- BECKE, F. (1891). *Z. Kristallogr.* **19**, 336.  
 KARTHA, G. & RAMACHANDRAN, G. N. (1955). *Acta Cryst.* **8**, 195.  
 STEINRAUF, L. K. & JENSEN, L. H. (1956). *Acta Cryst.* **9**, 539.

**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).*

**International Union of Crystallography**

The Commission on Crystallographic Apparatus has published an *Index of Manufacturers of Apparatus and Materials used in Crystallography*. The *Index* is in two parts: Part I, an alphabetical list of apparatus and materials, giving the names of manufacturers throughout the world; Part II, a list of addresses of the manufacturers quoted in Part I.

Copies of the *Index* have been sent to the Secretaries of National Committees (see *Acta Cryst.* (1956), **9**, 692), to whom all enquiries should be addressed.

**Acta Crystallographica**

Readers are reminded that current subscriptions expire with the appearance of the present issue. Subsequent issues will be sent only to those whose subscriptions have been renewed. To ensure continuity of supply, orders for Volume 10, with remittance, should be placed through the usual channels as soon as possible, and in any case in time to reach the publishers in Copenhagen not later than 31 December 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 2, N.Y., U.S.A.). As far as practicable books will be reviewed in a country different from that of publication.*

**Tables for the Evaluation of X-ray Powder Diagrams (Debye-Scherrer Diagrams).** By H. K. DETTMAN and H. KIRCHER. Pp. viii+94. (Title and text in German and English.) Weinheim: Verlag Chemie. 1956. Price DM.50 (about £4.6.0.)

The table gives  $\sin \theta$ ,  $\sin^2 \theta$  and  $d$  values for Cu, Co, Fe and Cr  $K\alpha_1$  radiations as functions of  $4\theta$ . This argument is chosen as it is equivalent to the distance in millimetres between corresponding lines on a photograph taken with the Bradley-Jay arrangement in a camera having the fairly common circumference of 360 mm. A blank column is provided so that another argument, suited to the user's own camera, can be written in. 'It was calculated in Farbenfabriken Bayer by means of the IBM 604 electronic calculating punch and written with the IBM 420 tabulator', and is reproduced photographically from the tabulator output.

The book is an excellent example of the misuse of computing facilities. The wavelengths are inserted to four significant figures, and the  $d$  values are tabulated to three

decimal places throughout, i.e. five significant figures for low values of  $\theta$ , where the accuracy is inherently low, reducing to four and then three significant figures as the value of  $\theta$  increases and greater accuracy of  $d$  measurement is possible. A check of the first line, the last line, and three lines in the body of the table (20 spacings in all) showed nine errors of one unit and two errors of two units in the last digit tabulated. Why  $\alpha_1$  is used instead of the weighted mean of  $\alpha_1$  and  $\alpha_2$  is not apparent.

German publications are notoriously expensive (see, for example, *Nature*, (1952), **170**, 446), but the price of this slim book is high even by German standards, thus destroying what value it might have as rapid means of determining rough spacings. The *Charts of Parrish & Irwin* (*Acta Cryst.* (1953), **6**, 877), give greater accuracy for \$2.00 (about 14s. 6d.)!

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