Table 1. *Interplanar spacings for* Hg_3TeO_6

Preparation according to Hutchins (1905). Reflections marked by a cross are also given by Westman & Magnéli (1957)

hkl	d_c	d_o	
220	4·73 Å	4·73 Å	*vw*
310	4·24	4·24	*vw*
311	4·05	4·05	*w*
320	3·72	3·72	*vw*
321	3·58+	3·58	*s*
400	3·35+	3·35	*m*
410, 322	3·25	3·25	*vw*
411, 330	3·16+	3·16	*vs*
331	3·07	3·06	*vw*
420	3·00+	3·00	*vs*
332	2·86	2·86	*w*
422	2·73+	2·73	*vs*
510, 431	2·63	2·65	*vw*
521	2·45+	2·45	*m*
440	2·37	2·37	*vw*
530, 433	2·30+	2·29	*m*
610	2·20	2·20	*w*
611, 532	2·18+	2·17	*m*

The white precipitate should be kept at 80 °C. for several weeks to ensure complete recrystallization. The recrystallized product contains coarse and strongly yellow crystals of mercury tellurate that may be selected by hand.

According to Westman & Magnéli (1957) mercury tellurate is cubic ($a_o = 13{\cdot}3921 \pm 0{\cdot}0013$ Å) and the reflections found by them indicate that $h+k+l=2n$, and thus that the unit cell is body-centered. Guinier exposures of mercury tellurate prepared as mentioned above show some additional reflections indicating that the unit cell is primitive. The obtained reflections do not allow a positive determination of the space group of the investigated material, but if the absence of the 002 reflection is systematic the space group is probably $P4_132$ or $P4_332$. If the absence of 002 is accidental, the point groups 23, $m3$, $\bar{4}3m$, and $m3m$ are also possible.

The interplanar spacings of mercury tellurate are given in Table 1.

References

HUTCHINS, E. B. (1905). *J. Amer. Chem. Soc.* **27**, 1178.
WESTMAN, S. & MAGNÉLI, A. (1957). *Acta Chem. Scand.* **11**, 1587.

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The unit cell and space group of 2,6-dimethoxy-3,5-dichloro-4-methylbenzoic acid.

By R. PATERSON and G. A. SIM, *Chemistry Department, The University, Glasgow, W. 2., Scotland*

(*Received* 23 *October* 1961)

During studies of substituted benzene derivatives (Ferguson & Sim, 1961) crystals of 2,6-dimethoxy-3,5-dichloro-4-methylbenzoic acid were examined. From oscillation, rotation and Weissenberg photographs taken with Cu $K\alpha$ radiation we have found the unit cell to be orthorhombic with dimensions

$$a = 7{\cdot}05 \pm 0{\cdot}02,\ b = 33{\cdot}1 \pm 0{\cdot}1,\ c = 20{\cdot}69 \pm 0{\cdot}07 \text{ Å}.$$

The systematic absences observed are those of the space group D_{2h}^{15}–*Pbca*. The measured crystal density is 1·43 g.cm.$^{-3}$, giving sixteen molecules in the unit cell. The calculated density is 1·458 g.cm.$^{-3}$.

No further work on this compound is contemplated.

Reference

FERGUSON, G. & SIM, G. A. (1961). *Proc. Chem. Soc.*, p. 162.

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.

The Interpretation of X-ray Diffraction Photographs.

By N. F. M. HENRY, H. LIPSON and W. A. WOOSTER. Pp. 224 with many figs. London: Macmillan. Sec. Ed. 1960. Price 63*s*.

Since the first edition was published in 1951, 'Henry, Lipson and Wooster' has established itself as an essential reference book on the library shelves, or more often on the desks, of a majority of X-ray crystallographers. Its value for the practical man, as well as for teaching purposes, has been universally recognized. The advent of a second edition is therefore to be very warmly welcomed. Not only will it enable many more individuals to become familiar with the details of its excellently written text, but it will also make it possible to replace those copies which are suffering the consequences of continuous use over a period of nine years.

One notable feature of the present edition is that several major revisions have been effected, in order to incorporate new matter, without changing the overall length of the text appreciably. Indeed the text finishes on page 224 as it did in the original edition. This has been managed partly by transferring some items, including tables, which were previously included in the body of the book, to appendices, but also by adding paragraphs about recent developments towards the ends of chapters.

The publication during the last ten years of several other text books on particular crystallographic topics has