Letters to the Editor

The Board of Editors does not hold itself responsible for opinions expressed in the letter published in this section. The notes containing short reports of original investigations communicated to this section should not contain many figures and should not exceed 500 words in length. The contributions reaching the Secretary by the 15th of any month may be expected to appear in the issue for the next month. No proof will be sent to the author.

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SPACE GROUP AND UNIT CELL DIMENSIONS OF COPPER MONOCHLOROACETATE 2.5 HYDRATE

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The measurement of the magnetic susceptibility of copper acetate monohydrate within the range of 300°K to 90°K, has shown that close down to 262°K $\pm$1°K, the susceptibility follows roughly Curie Law, it rises to a maximum at that temperature and falls rapidly thereafter (Guha, 1951). The study of the electron paramagnetic resonance of the salt, predicted the existence of isolated pairs of copper ions coupled by exchange interaction forces, with effective $S = 1$, and that each copper ion is bonded by four oxygen atoms in a plane (Bleaney *et al.*, 1952). The presence of this type of pairs of copper ions which are known as dimers was corroborated in the structure analysis of the salt (Nieckerk *et al.*, 1963). Since then, such occurrences have been predicted in quite a number of copper salts like copper propionate monohydrate (Mitra *et al.*, 1964), copper monochloroacetate monohydrate (Abe, *et al*, 1961), Copper monochloroacetate, 2.5 hydrate (Ablov *et al.*, 1961) etc. In the present note, preliminary data on the structure of 2 [Cu $(CH_2Cl\ COO)_2$]$5H_2O$, are reported.

The crystals of 2 [$Cu(CH_2Cl\ COO)_2$] $5H_2O$ were crystallised by the slow evaporation of an aqueous solution of the substance. These are prismatic monoclinic crystals with bright bluish green colour.

The unit cell dimensions were obtained from rotation and Weissenberg photographs. The dimensions are given below :

$a = 16.85$Å $\quad b = 13.73$Å $\quad c = 17.24$Å $\quad \beta = 90°$

Zero and first layer Weissenberg photographs along *b* axis were taken and the systematic extinctions were observed. These are as follows :

hkl	no condition
*h*0*l*	$h+l = 2n$ absent
0*k*0	$k = 2n+1$ absent

The above conditions assign the space group as $P2_1/n$.

The density as determined by floatation method by using a mixture of bromoform and benzene, is $\rho = 1.91$ gm cm^{-3}.

The density calculated by considering eight molecules per unit cell is $\rho = 1.95$ gm cm^{-3}.

Further work on the determination of the complete structure of the crystal is in progress.

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X-RAY STUDY OF THE MONOCLINIC MODIFICATION OF PARA ACETOTOLUIDIDE CRYSTALS

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Acetyl-para-Toluidin i.e. Para Acetotoluidide ($CH_3C_6H_4CONHCH_3$) crystallises in two modifications Beilstein – one stable as platy monoclinic crystals and another metastable as rhombic needle like crystals respectively on slower and

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