

Cell dimensions:

$$a_0 = 11.32 \text{ A. U.}$$

$$b_0 = 20.06$$

$$c_0 = 6.00$$

$$a:b:c$$

$$\text{X-ray} \quad 0.5643:1:0.2991$$

$$\text{Pratt} \quad 0.5662:1:0.3019$$

Lattice and space group: face-centered, $C_{2v}^{19} = Fdd2$; 8 molecules $\text{CaCO}_3 \cdot \text{Na}_2\text{CO}_3 \cdot 2\text{H}_2\text{O}$ per cell.

Density: calculated, 2.367; measured (Pratt), 2.352.

This work was carried out as part of a program to complete crystallographic data for the 7th edition of Dana's *System of Mineralogy*. The second volume of this work is now in preparation at the Department of Mineralogy, Harvard University, under the direction of Professor Clifford Frondel, who kindly loaned the material for these measurements. Acknowledgments go to Professor A. von Hippel of the Laboratory for Insulation research, Massachusetts Institute of Technology, who provided the x-ray diffraction facilities.

NOTE ON SCHIRMERITE

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By making use of A. Harcourt's well-known tables¹ for the identification of ore minerals by means of x-ray powder photograms the author occasionally identified a mineral as *schirmerite*, $\text{PbAg}_4\text{Bi}_4\text{S}_9$. This was unexpected as a spectro-chemical analysis had not shown any presence of bismuth and only traces of silver and lead. The agreement between the d -values and the intensities from the table and from the x-ray pattern was perfect. A closer inspection showed, however, that the d -values fit an isometric structure with a cube length of 10.36 kX. All the 27 lines, except one ($d = 2.82$ kX) having an intensity of only 0.2, can be indexed according to the criteria of the space-group $T_d^3 - I\bar{4}3m$. So it must be concluded that the specimen used by Harcourt was a member of the tetrahedrite group. It may be pointed out that the specimen used by him was not obtained from the original schirmerite locality.

¹ Harcourt, G. Alan, *Am. Mineral.*, **27**, 63 (1942).

The Annual Meeting of the Society for Experimental Stress Analysis will be held at The Roosevelt Hotel, Pittsburgh, Pennsylvania, on May 27, 28, 29, 1948. Inquiries may be addressed to the Society for Experimental Stress Analysis, P. O. Box 168, Cambridge 39, Massachusetts.
