lead indicate that these are not due to systematic experimental errors.

With respect to experimental errors, it is apparent that the derived values of f^2 will be in error to the same extent that the measured intensities are in error. However, if sufficient care is taken in the alignment of the diffractometer and in the recording of the data, the relative intensities should be quite exact. In particular, with liquid specimens one need not worry about extinction, preferred orientation, Debye-Waller factors or the separation of peak and diffuse intensity, all of which are possible sources of error when using solid specimens to check the shape of f^2 .*

We are grateful for the use of the facilities of the M.I.T. Computation Center. We wish to thank A. J. Freeman and R. E. Watson for the use of their unpublished results. We appreciate, also, the sponsorship

* A multiple scattering correction is required, however, when elements of low absorption are investigated.

by the Office of Naval Research, whose continuing support has made this work possible.

References

- COHEN, S. (1960). Phys. Rev. 118, 489.
- CROMER, D. T. (1965). Acta Cryst. 18, 17.
- CROMER, D. T., LARSON, A. C. & WABER, J. T. (1964). Acta Cryst. 17, 1044.
- CROMER, D. T. & WABER, J. T. (1965). Acta Cryst. 18, 104.
- DAUBEN, C. H. & TEMPLETON, D. H. (1955). Acta Cryst. 8, 841.
- FREEMAN, A. J. & WATSON, R. E. (1965). Private communication of unpublished results.
- HANSON, H. P., HERMAN, F., LEA, J. D. & SKILLMAN, S. (1964). Acta Cryst. 17, 1040.
- IBERS, J. A. (1958). Acta Cryst. 11, 447.
- International Tables for X-ray Crystallography (1962). Vol. III. Birmingham: Kynoch Press.
- JAMES, R. W. (1954). The Optical Principles of the Diffraction of X-rays. London: Bell.
- KAPLOW, R., STRONG, S. L. & AVERBACH, B. L. (1965). *Phys. Rev.* **138**, A1336.

Short Communications

Contributions intended for publication under this heading should be expressly so marked; they should not exceed about 1000 words; they should be forwarded in the usual way to the appropriate Co-editor; they will be published as speedily as possible. Publication will be quicker if the contributions are without illustrations.

Acta Cryst. (1965). 19, 1046

Crystal data for monobenzoylosmocene. By A. C. MACDONALD and J. TROTTER, Department of Chemistry, University of British Columbia, Vancouver 8, B.C., Canada

(Received 28 June 1965)

Crystals of monobenzoylosmocene, C_5H_5 . Os. C_5H_4 . CO. C_6H_5 , are yellow needles (Rausch, Fischer & Grubert, 1960) elongated along **a**. The unit-cell dimensions and space group were determined from rotation, Weissenberg and precession films, and on the General Electric Spectrogoniometer.

Crystal data (λ , Cu K α =1·5418 Å; λ , Mo K α =0·7107 Å). Monobenzoylosmocene, C₁₇H₁₄OOs; M.W. 424·5; m.p. 134·5°C.

Monoclinic, a = 6.07, b = 15.49, c = 14.53 Å, $\beta = 106^{\circ}40'$. U = 1308.8 Å³.

 D_m (flotation in aqueous silver nitrate) = 2.18, Z = 4, $D_z = 2.15_4$ g.cm⁻³.

Absorption coefficients for X-rays: $\mu(\text{Cu } K\alpha) = 185 \text{ cm}^{-1}$, $\mu(\text{Mo } K\alpha) = 103 \text{ cm}^{-1}$, F(000) = 800.

Absent reflexions: h0l when l is odd, 0k0 when k is odd. Space group $P2_1/c$ (C_{2h}^5) .

No further work is planned.

The authors thank Dr M. D. Rausch for the crystal sample, the National Research Council of Canada for financial support, and the Department of Scientific and Industrial Research, United Kingdom, for a research studentship (to A.C.M.).

References

RAUSCH, M. D., FISCHER, E. O. & GRUBERT, H. (1960). J. Amer. Chem. Soc. 82, 76,