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).

3° strips for Fourier synthesis and analysis

It is now twelve years since the Fourier strips at a 6° interval were produced by Lipson and Beevers. Since that time more than seventy sets of these have been distributed, mainly to workers in X-ray crystallography. The supply of these 6° strips is now exhausted. Furthermore, there is a frequent need for a finer interval of subdivision. The X-ray Analysis Group of the British Institute of Physics has therefore arranged for the production of a set of Fourier strips to a 3° interval, and these strips can now be ordered from Dr C. A. Beevers, Dewar Crystallographic Laboratory, King's Buildings, Edinburgh 9, Scotland. The material can be supplied in two forms: (1) Uncut tables, each set containing 366 tables, size 7 by 12½ in., duplicated on both sides, at a price of £12. 10*s*. 0*d*. (plus carriage). Instructions for cutting and for the preparation of suitable boxes are included. Delivery of this form of the strips will be prompt. (2) Cut strips ready for immediate use, in two boxes similar to but larger than those used for the old set. The price of this form is £28 (plus carriage), and the delivery time will depend upon the demand.

The information carried by the new strips is the magnitude of $A \cos nh3°$ and $A \sin nh3°$ to the nearest integer, for a range of values of A and h, and for values of n from 0 to 30. In order to reduce the length of the strip, and for the reason given below, the even values of n are on one side and odd values of n on the other side of a strip. The range of A covered is from 1 to 100 (plus and minus) in steps of 1, and then to 900 (plus and minus) in steps of 100. Thus immediate two-figure working is obtained by drawing one strip. Workers requiring higher accuracy can draw two strips for each value of h, thus obtaining amplitudes up to 1,000. The values of h go from 0 to 30 immediately, but the separation into odd and even values of n permits that by merely changing the signs of the amplitudes, the range of h can be extended to all values, just as can the range of n. For the calculation of structure factors where an accuracy of fixation of 3° is sufficient, h can be used as the atomic coordinate and the strips provide a simple and comprehensive aid to calculation. In final computations where the 3° fixation is insufficient the strips can be used on the electron densities at every 3° interval, and they will then give the Fourier transform of this, which is, of course, the set of intensities (high orders being negligible).

American Society for X-ray and Electron Diffraction

A meeting of the American Society for X-ray and Electron Diffraction took place at Battelle Memorial Institute, Columbus, Ohio, from 16 to 18 December 1948. The scientific sessions included a number of papers featuring micro-techniques. The proposed plan for a single society to take the place of the ASXRED and the Crystallographic Society of America was discussed in the business meeting. The group was addressed at dinner by Prof. Max von Laue.

Tables for X-ray Diffraction Analysis

The Technical Service Department of the Socony-Vacuum Laboratories, 412 Greenpoint Avenue, Brooklyn 22, N.Y., U.S.A., announces the publication, under reference 48-14-S of 3 May 1948, of *Tables for X-ray Diffraction Analysis*; and, under reference 48-M-82 of 1 November 1948, of *Supplementary Tables*. The former tables present the relationship between Bragg angle and spacing for Cr, Fe, Cu and Mo $K\alpha$ radiation, and were prepared particularly for use with the North American Philips X-ray Spectrometer. The latter tables give the same data, but recomputed with greater accuracy for the range of 2θ values from 0 to 9°. Crystallographers are generously invited to apply to the Socony-Vacuum Laboratories for copies of these two sets of tables for which no charge is made.

Large single crystals

The Office National d'Étude et de Recherches Aéronautique, 3 Rue Léon-Bonnat, Paris XVI, France, announces the manufacture of very large and extremely pure artificial single crystals of NaCl, KCl, KBr, KI, LiF, CaF_2, $NaNO_3$, AgCl and thallium halides. These crystals can be supplied in the form of prisms, disks, lenses, plates and windows suitable for optical, astronomical, spectroscopic and other researches. Inquiries should be addressed to the Chef du Service Commercial.

Book Reviews

Works intended for notice in this column should be sent direct to the Editor (P. P. Ewald, The Queen's University, Belfast, Northern Ireland). As far as practicable books will be reviewed in a country different from that of publication.

Longueurs d'onde des émissions X et des discontinuités d'adsorptions X. By Y. Cauchois and H. Hulubei. Paris: Hermann et Cie. 1947.

These tables give a collection of some 7000 wave-lengths of X-ray emission lines and of X-ray absorption edges ranging from 106·58 X units (K adsorption of uranium) to 17445 X units ($L\alpha_3$ line of iron). In addition to the wave-lengths, the frequencies (in multiples of the Rydberg constant R) are tabulated and also the quantities $\sqrt{(\nu/R)}$, which may be of much convenience for workers in the field. Complete lists of the characteristic wave-lengths