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).

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(The abstracts are in English and the papers are those presented at the Montreal Congress of the International Union of Crystallography)

N. V. Belov, N. N. Neronova and T. S. Smirnova. The Shubnikov groups.

I. I. Shafranovskii. The evolution of the science of crystal forms.

I. S. Zheludev. The symmetry of homogeneous, continuous, isotropic media in tensor, scalar and vector fields.

B. K. Vainshtein. The intensity of the reflexions in electron-diffraction patterns (general case).

A. I. Kitaigorodskii. The theory of relations between structure amplitudes and methods for the direct analysis of crystal structures.

V. I. Vlasenko and G. S. Zhdanov. The automatic synthesis of two-dimensional pictures of atomic structures.

N. V. Belov. New silicate structures.

M. A. Porai-Koshits, E. K. Yukhno, A. S. Antsishkina and L. M. Dikareva. The atomic structure of crystals of complex compound of nickel of the acidoamine type.

Yu. T. Struchkov and T. L. Khotsyanova. X-ray investigation of the crystal structures of certain derivatives of ferrocene.

T. L. Khotsyanova and Yu. T. Struchkov. The crystal structures of the diphenyl compounds of bivalent halides.

Z. G. Pinsker and S. V. Kaverin. Electron-diffraction investigation of the nitrides and carbides of transition metals.

B. B. Zvyagin. Electronographic determination of the structure of celadonite.

G. B. Bokii and G. A. Kukina. The crystal chemistry of complex compounds of bivalent platinum (the effect of 'transdirecting' influences in crystalline materials).

Z. V. Zvonkova. A crystallochemical investigation of the structures of certain complex compounds.

V. I. Iveronova, A. P. Zvyagina and A. A. Katsnel'son. Distortions of the crystal lattice in solid solutions.

Yu. A. Bagaryatskii and Yu. D. Tyapkin. The mechanism of structural transformations in the ageing of nickel-based alloys.

A. V. Shubnikov. On the formation of spherulites.

G. G. Lemmlein, E. D. Dukova and A. A. Chernov. An investigation of the dynamics of certain elementary growth and evaporation processes of crystals.

L. M. Belyaev, V. A. Perl'shtein and V. P. Panova. An investigation of the distribution of an activator in alkali-halide crystals using a radioactive tracer method.

N. A. Shamba and N. N. Sheftal'. The spiral growth of silicon crystals.

Book Reviews

Woorks intended for notice in this column should be sent direct to the Editor (P. P. Ewald, Polytechnic Institute of Brooklyn, 99, Livingston Street, Brooklyn 2, N.Y., U.S.A.). As far as practicable books will be reviewed in a country differen from that of publication.

Teoría de los Métodos Roentgenograficos del Cristal Giratorio. By Fernando Huerta. Pp. 135. Madrid: Instituto de Física 'Alonso de Santa Cruz'. 1955. Price 50 pesetas.

This useful geometrical study gives a classification and discussion of those diffraction methods which use a crystal rotating about an axis (say vertical), monochromatic incident X-rays (horizontal) and either a cylindrical or plane film which can be fixed, or moved by a train of gears while the crystal rotation takes place. For rotation and oscillation diagrams the film is fixed; for Weissenberg diagrams the cylindrical film is shifted parallel to the axis of rotation of the crystal; for Sauter diagrams the plane film, normal to the incident rays, is rotated; in the de Jong–Bouman method the plane of the rotating film is parallel to the incident ray and its axis of rotation parallel to, but offset from, the axis about which the crystal rotates. Finally, in one of Schiebold's methods, a cylindrical film whose axis remains normal to the incident ray, rotates about an axis coinciding with this ray. While these are known methods, the author's systematic survey leads to three more types: a Weissenberg method in which the film cylinder performs a screw motion instead of a simple translation; a rotation method in which the cylindrical film rotates about the same axis as the crystal; and a modification of the de Jong–Bouman method in which the axis of rotation of the crystal and that of the flat film are not offset but coincide, while a diaphragm cuts out one half of the cones of diffraction. The book deals with the indexing and the advantages that can be obtained from the various methods, without discussing intensity factors. The Buerger precession method is explained in a two-page appendix.

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