

## Notes and News

*Announcements and other items of crystallographic interest will be published under this heading at the discretion of the Editorial Board. The notes (in duplicate) should be sent to the General Secretary of the International Union of Crystallography (D. W. Smits, Rekencentrum der Rijksuniversiteit, Grote Appelstraat 11, Groningen, The Netherlands). Publication of an item in a particular issue cannot be guaranteed unless the draft is received 8 weeks before the date of publication.*

### International Union of Crystallography

#### Grants to support the production of motion picture films

UNESCO has made available some funds to support the production of short motion picture films on crystallographic topics. These films, of 3 to 4 minutes duration, silent, on either black-and-white or colour film, should be primarily designed for instructional purposes. The funds will be administered by the Commission on Crystallographic

Teaching of the International Union of Crystallography. Individual scientists who have suitable filming facilities and wish to apply for grants to support the production of such films should address their applications to the Secretary of the Commission, Professor H. Curien, Laboratoire de Minéralogie et Cristallographie, 1 rue Victor Cousin, Paris 5e, France. A tentative script, or at least an outline, of the proposed film, and a financial budget should accompany the application.

## Book Reviews

*Works intended for notice in this column should be sent direct to the Editor (A.J.C. Wilson, Department of Physics, The University, Birmingham 15, England). As far as practicable books will be reviewed in a country different from that of publication.*

**Physical properties of diamond.** Edited by R. BERMAN. Pp. xii+443 with 286 figs and 40 tables. Oxford: Clarendon Press, 1965. Price (U.K. only) £3.15s.

The preface to this book explains its unusual origin. For a number of years an annual conference on diamond research has been held and a group of people have met and described their work. Until now nothing has been published arising from these conferences, but this book is a survey of the various fields covered in these conferences. It is therefore a survey of much unpublished as well as published material written by those most qualified to do so. The subjects and authors of the fifteen chapters are as follows: Introduction, R.W. Ditchburn and J.F.H. Custers; X-ray diffraction studies on diamond and some related materials, K. Lonsdale and H.J. Milledge; X-ray topography of diamond, F.C. Frank and A.R. Lang; Transmission electron microscopy of diamond, T. Evans; Optical studies on diamond, S. Tolansky; Ring cracks on diamond surfaces, V.R. Howes; Deformation, friction and wear of diamond, F.P. Bowden and D. Tabor; The hardness and wear of diamond during grinding and polishing, E.M. Wilks and J. Wilks; Electronic structure of diamond, M.H.L. Pryce; Paramagnetic resonance in diamond, J. Owen; Optical properties of natural diamonds, C.D. Clark; Semiconducting diamond, P.J. Kennedy and P.T. Wedepohl; The counting properties of diamonds under ionizing radiations, F.C. Champion and P.J. Kennedy; Thermal properties, R. Berman; Radiation damage in diamond, E.W.J. Mitchell.

The book is invaluable for those who are in any way concerned with the properties of diamond. The theoretical problems presented by diamond as well as the practical problems associated with its hardness, grinding, electrical and thermal conduction are excellently set out. At the present time the synthesis of diamond is of great general interest and perhaps some readers will be disappointed to find

no account of this. The editor doubtless felt that it could not be included under the title of 'physical properties', but there would have been little objection if it had been included. The book is very well produced and there are many remarkable photographs contained in it. Even if the Diamond Conferences had had no other result than the production of this book they would have been justified.

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**Advanced methods of crystallography.** Edited by G. N. RAMACHANDRAN. Pp. x+279. London, New York: Academic Press, 1964. Price £3.5s or \$10.50.

Publishing a series of lectures from a conference may be of great value to those who attend the conference but, I feel, of limited value to others. This book is a collection of short courses, written as separate chapters, given at the 1963 Winter School in Madras, which I understand was held as an aid to crystallographic education in India. With this in mind it is not surprising to find no new work covered, although the title might lead one to expect some. Structural crystallographers particularly will be disappointed that there is no mention of the application of computers to modern statistical and vector search methods of structure solution.

The individual chapters are well written but necessarily concise. The first chapter, *Image Methods in Crystal-structure Analysis* by M.J. Buerger is a theoretical treatment of image algebra and its application to crystal-structure solution. The next two chapters, *Fourier Syntheses for Partially*