

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 Executive Secretary of the International Union of Crystallography (J. N. King, 13 White Friars, Chester CH1 1NZ, England).

International Union of Crystallography Commission on Electron Diffraction

In accordance with a decision of the Commission on Electron Diffraction a directory of persons working in the field of low-energy electron diffraction (LEED) is to be established. Please write to: Pr. S. Goldsztaub, Laboratoire de Minéralogie, 1, rue Blessig, 67 Strasbourg, France.

International Union of Crystallography Resignation of General Secretary

Dr G. Boom has resigned as General Secretary of the Union, his resignation taking effect from the close of the recent meeting of the Executive Committee, held in London from 31 March to 3 April. On 31 March the Executive Committee accepted his resignation with regret and, after agreeing to recombine the offices of General Secretary and Treasurer, unanimously agreed to appoint Professor D.W.J. Cruickshank (formerly Treasurer) to this joint office as from 3 April 1970.

Book Reviews

Works intended for notice in this column should be sent direct to the Book-Review Editor (M.M. Woolfson, Physics Department, University of York, Heslington, York YO1 5DD, England). As far as practicable books will be reviewed in a country different from that of publication.

Physics of the solid state. Edited by S. BALAKRISHNA, M. KRISHNAMURTHY, and B. RAMACHANDRA RAO. Pp. xxiv + 540. London: Academic Press, 1969. Price 160s. \$ 24.00.

This well produced book commemorates the 60th birthday of Professor Suri Bhagavantam. Sir C.V. Raman in the foreword writes that Professor Bhagavantam has helped to raise the status of India in the world of science. This book with its consistent high quality of writing is indeed a fitting tribute. There are 29 articles of a review nature of which about half are written by Indian scientists and the remainder by foreign scientists who have been in close contact with Professor Bhagavantam and his work. The Editors have done their job extremely well – the quest for errors is fruitless.

The scientific content of the book follows very much the wide interests Professor Bhagavantam has in physics, ranging over symmetry and group theory, the study of the structure, elasticity, defects and Raman scattering of crystals and even the study of the Earth. Because the range is so wide this book will become more of a library reference than a book personally owned, and any department which does solid state physics should be equipped with it.

The book starts for the crystallographer with two articles on symmetry by A.V. Shubnikov and N.V. Belov *et al.* There seems to be little new in these articles, which are followed by a revised table of diffraction symbols by M.J. Buerger. This will surely be referred to many times. The most stimulating of the crystallographic articles then follows, concerning the geometry of chemical reactions in single crystals by K. Lonsdale. Here we see quite distinctly one of the reasons for doing crystallography today. How to do it is another matter and some of us may choose to try the β -synthesis as reviewed in the fifth article. Many modern crystallographers are not preoccupied with the perfect

crystal state, and so we are not surprised to find an article on the cholesteric liquid crystalline state, and a number on static defects and dynamical problems.

If your library owns this book do not be surprised to find a gap in its shelves. If you take the book out you might find yourself waylaid by articles you had not intended to read. One such is by A. Jayaraman on high pressure phenomena in solids. One phase change he describes at high pressures is thought to involve $6s \rightarrow 5d$ electron collapse but essentially no structural change. This is indeed fascinating for the crystallographer and points to one of the many problems of the future.

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Theory of X-ray and thermal neutron scattering by real crystals. By MIKHAIL A. KRIVOGLAZ. Translation Editor SIMON C. MOSS. Pp. xix + 405. New York: Plenum Press, 1969. Price \$25.00.

Over the last decade or so Professor Krivoglaz and others in the Soviet Union have made important contributions to theories of the elastic scattering of X-rays and neutrons at static inhomogeneities in real crystals and the inelastic scattering of X-rays and thermal neutrons: much of this work has not received adequate attention from Western scientists. We therefore welcome the publication of an English translation of Professor Krivoglaz's book, only two years after the Russian edition.

This is not an introductory text to the subject but a very personal account of the theory of scattering in real crystals for an expert audience. In his treatment of scattering by