

Journal of crystal growth. Vol. 1, No. 1. Amsterdam: North Holland Publishing Co., January 1967. Price per volume of about 400 pages \$20, 144/- or 72 Gld.

The objects of this journal are very similar to those of the *Materials Research Bulletin* described immediately above, and it is interesting that two journals concerned with the growth of crystals should have been initiated almost simultaneously. The *Journal of Crystal Growth* gives a much more attractive appearance, being printed in letter-press on smooth paper. This makes possible good reproduction of line drawings and photographs, of which the first issue contains a good many. In spite of the better method of production, the *Journal of Crystal Growth* is considerably cheaper. There are six papers and one letter to the Editor in the first issue, one paper being in German and the rest in English. Papers in French are also acceptable. The last four pages of the 58 comprising this issue are devoted to news items, including reports of three conferences.

The chief editor is M. Schieber, Department of Physics, Hebrew University, Jerusalem, Israel. He is assisted by two editors in the United States, eighteen associate editors in various parts of the world, and an editorial advisory board with sixteen members. One of these is also an editor-in-chief and another is an associate editor of the *Materials Research Bulletin*.

Radiation measurements in nuclear power. Edited by D. J. LITTLER, A. C. STICKLAND, and others. Pp. viii + 455. London: The Institute of Physics and The Physical Society, 1966. Price £5 or \$15.

This volume contains the proceedings of the international conference organized by The Central Electricity Generating Board in collaboration with The Institute of Physics and The Physical Society at the Berkeley Nuclear Laboratories in September 1966. It is divided into seven 'chapters', each containing the texts (occasionally summaries only) of several papers. The first chapter consists of three invited papers on the role of radiation measurements in thermal reactors (G. H. Kinchin), in fast reactors (R. D. Smith) and in reactor-shield design (J. Butler). The remaining chapters consist of contributed papers and summaries of the discussion. The headings are Thermal neutron measurements (10 papers), Fast and epithermal neutron measurements (17 papers), Interpretation of indirect spectral measurements (four papers), Absolute methods and calibration (nine papers), Data and data handling (seven papers), and Measurement techniques (six papers).

Users of neutron-diffraction techniques will find several of the papers of interest, but otherwise there is little with crystallographic application.

Continuing numerical data projects. A survey and analysis. Edited by MIRIAM G. BUCK. Pp. xvi + 203. Washington: National Academy of Sciences and National Research Council, 1966. Price \$5.

This is a second edition of a survey first published in 1961, and describes the operations and publications of more than fifty active projects engaged in the compilation of data. Most of the projects are in the United States, but some important ones are in other countries, and a few result from international collaboration. Thirty-two pages are devoted to crystallographic, mineralogical and other solid-state projects; *Structure Reports* and *International Tables for X-ray Crystallography* are fully described. The whole survey will be of the greatest value to everyone concerned with information and documentation.

Gallium arsenide. Edited by A. C. STICKLAND and M. E. HILTON. Pp. vii + 247. London: The Institute of Physics and The Physical Society, 1967. Price £4.4.0 or \$12.

The Institute of Physics and The Physical Society have recently introduced a 'Conference Series', of which this is the third volume. It contains thirty-five papers presented at a symposium held at Reading University in September 1966, under the joint sponsorship of The Institute of Physics and The Physical Society and the Avionics Laboratory of the United States Air Force. The thirty-five papers are divided into four 'chapters', of which the first deals with Materials preparation. Both epitaxial techniques and growth from the melt are described, and each method is followed by a report of the discussion. Chapter two is concerned with Optical effects, including laser applications, radiation efficiency, photoluminescence and degradation. Chapter three deals with Microwave devices, especially oscillators, and Chapter four is concerned with Junction devices, particularly transistors, though tunnel diodes and rectifiers are also discussed.

The standard of production is very good, and closely resembles an issue of the *Proceedings of the Physical Society* fitted with a hard cover. This is, however, an illusion, as the printers are not the same.

Concatenated codes. By G. D. FORNEY, JR. Pp. xi + 147. Cambridge, Massachusetts: The M.I.T. Press, 1966. Price 32s.

This work offers an introduction to concatenation – a technique for constructing long codes that can be decoded without an excessive number of computations and yield performance like that contemplated by Shannon's coding theorem. A method of using likelihood information in algebraic decoding schemes is also introduced and evaluated.