

ments in the design and construction of instruments but also a more complete understanding of image formation and interpretation. There are now several projects around the world aimed at building ultra-high-resolution microscopes and currently point-to-point resolution at about the 2 Å level has been achieved. It is thus appropriate that progress towards the goal of direct imaging of atoms should have been the subject of a symposium in August 1972 sponsored by the Nobel Foundation.

The proceedings of this meeting comprise thirty four contributions of varying length from an international group of experts. The subject matter is wide ranging and covers the theory, the present use of, and the prospects for the conventional transmission electron microscope and its scanning equivalent as instruments capable of resolving atoms in thin specimens. Among the applications of the technique the following systems are discussed: amorphous materials, solid-state reactions, catalytic particles, metal oxides, silicate minerals, ordered alloys and metals, semiconductors, defects in a variety of materials, and biological materials including macromolecules. The final three articles provide a useful summary of the 'state of the art' in the general fields of physics, chemistry and biology. One minor criticism of the contents is a lack of fuller discussions on the influence of radiation damage and on convergent-beam diffraction for electron crystallography. However, the standard of the contributions is generally high. In a proceedings of this type good reproduction of the many micrographs is essential and this has been achieved. The book will prove useful to anyone interested in this developing field of structure determination and will benefit both the newcomer and the experienced practitioner. It is a pity therefore that the price will probably prevent its purchase by many individuals. The subject matter of these proceedings is an area which is still developing and which promises much. It will be interesting to see if that promise is fulfilled when a similar symposium is held in perhaps three or four years time.

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### Books Received

*The following books have been received by the Editor. Brief and generally uncritical notices are given of works of marginal crystallographic interest; occasionally a book of fundamental interest is included under this heading because of difficulty in finding a suitable reviewer without great delay.*

**Computers in activation analysis and gamma-ray spectroscopy.** Edited by B. S. CARPENTER, M. D. D'AGOSTINO and H. P. YULE. Pp. xxii + 879. Published by the Technical Information Center, US Department of Energy, 1979; available as CONF-780421, at US \$15.00, from the National Technical Information Service, US Department of Commerce, Springfield, VA 22161, USA.

**Modern crystallography, Vols. I-IV.** Edited by B. K. VAINSHTEIN, A. A. CHERNOV and L. A. SHUVALOV. This four-volume treatise is appearing currently in Russian, published by Nauka, Moscow, but will be available in due course in English translation, published by Springer-Verlag. Vol. I, on Symmetry and Crystallographic Methods, was published in Russian in 1979; the English edition is expected in January 1981. A review, in English, of this first Russian volume will be published shortly in this journal.

**Crystal growth bibliography. Solid state physics literature guides, Vol. 10.** Compiled by A. M. KEESEE, T. F. CONNOLLY and G. C. BATTLE JR. Pp. viii + 430 (Vol. 10A), pp. iv + 568 (Vol. 10B). New York: Plenum Press, 1979. Price US \$95.00. A review of this book, by T. Ogawa, has been published in the August 1980 issue of *Journal of Applied Crystallography*, page 402.

**Fundamentals of crystal growth 1.** By F. ROSENBERGER. Pp. x + 530. Berlin: Springer, 1979. Price DM 79, US \$39.50, ca £18. A review of this book, by J. C. Brice, has been published in the August 1980 issue of *Journal of Applied Crystallography*, pages 401 to 402.