

impurities and optical properties of ions with the  $s^2$  configuration. Furthermore, the results of the theoretical computation of defect parameters are reviewed and the subject of fast ion conduction, in particular for compounds with order-disorder transitions, is extensively treated. The abundance of experimental and calculated thermodynamic data reported in the numerous tables is particularly valuable.

The assessment of crystal perfection by X-ray topography (B. K. Tanner) gives a swift description of some important X-ray topographic techniques and image interpretation, clearly defining the limits of applicability of these techniques and discussing both similarities and differences in comparison with transmission electron microscopy, thus giving a picture of their complementarity.

A short article on the plasticity of highly plastic molecular crystals (R. M. Hooper and J. N. Sherwood) is devoted to showing that the deformations of these crystals are typically solid-state processes. Also, the interesting advances recently made in this field are reported.

Finally, the chapter on the ultrastructure of minerals (J. L. Hutchison, D. A. Jefferson and J. M. Thomas) selectively surveys the solid-state structural chemistry of some classes of minerals by high-resolution electron microscopy (HREM). Moreover, the article is enriched with many micrographs which elucidate the utility of HREM in mineralogy.

The aim of reporting the most recent progress in some specialized areas of surface and defect properties of solids (supported by several hundred references in each case) is fully attained by all the monographs.

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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.*

**Solid ionic and ionic-electronic conductors.** Edited by R. D. ARMSTRONG. Pp. xii + 131. Oxford: Pergamon Press, 1977. Price \$20.00.

This is a selection (without change of pagination) of 23 recently published papers from the conference of this title held in Rome, in September 1976. The collection, under one cover, will afford a useful reference for those working in this field.

**Chemistry and physics of one-dimensional metals.** Edited by HEIMO J. KELLER. Pp. viii + 426. New York and London: Plenum, 1977. Price \$45.00.

A review of this book, by H. Boller, has been published in the June 1978 issue of *Acta Crystallographica*, Section B, page 1750.

**Crystallography and its applications.** By L. S. DENT GLASSER. Pp. viii + 224. Wokingham: Van Nostrand-Reinhold, 1977. Price £12.00 (cloth) or £5.95 (paper).

A review of this book, by W. C. Bigelow, has been published in the May 1978 issue of *Acta Crystallographica*, Section B, page 1750.