

Book Reviews

Works intended for notice in this column should be sent direct to the Book-Review Editor (R. O. Gould, Department of Chemistry, University of Edinburgh, West Mains Road, Edinburgh EH9 3JJ, Scotland). As far as practicable books will be reviewed in a country different from that of publication.

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Phonons: theory and experiments II. By P. BRÜESCH. Pp. xii + 278. Berlin: Springer-Verlag, 1986. Price DM 80.00.

This book deals with a variety of experimental techniques that provide information on phonon properties of solids. There are major chapters on infrared spectroscopy, Raman and Brillouin scattering, X-ray and neutron scattering methods, brief descriptions of ultrasonic techniques, inelastic electron tunneling, point contact spectroscopy, and an even briefer survey of surface phonons and their measurement. On the whole, these subjects are treated competently and reasonably completely, and the book provides a useful index to the literature, so that a newcomer to any particular subject area can find other relevant material if he wishes. (However, many references are to Part I of this series, published in 1982, rather than to the original papers directly.)

The level of treatment and the amount of technical detail provided for each subject are not very consistent; some parts of a given subject are treated very thoroughly indeed while other parts are glossed over superficially. I doubt that this book will have a strong appeal to the experts in any field, and the newcomer will certainly need to consult previously published textbooks or review articles to supplement what Brüesch (or Bühner, in the case of chapter 6) has written. I had difficulty deciding who is the intended reader of this book, a comment that could also be made of Part I. The most successful sections of the book (e.g. §§ 7.2, 7.3, 7.4) are those dealing briefly and succinctly with what the author calls 'Other Techniques'.

On a more trivial level, the number of typographical errors was disturbingly large, and the quality of the English left something to be desired. It would have been worthwhile having the proofs read carefully by a competent native English speaker. There are also a few relatively unimportant

factual errors: reference 2.80 is incorrectly cited and is in any case totally irrelevant in the context of its citation; σ_{inc} for H is almost *two* orders of magnitude larger than for other elements (p. 171). A certain amount of unnecessary repetition occurs because of the book's organization: thus much of chapter 4 on Brillouin spectroscopy simply repeats what has already appeared in chapter 3 (Raman scattering). These minor annoyances did little to enhance my enthusiasm for the book as a whole. This is a book that major scientific libraries should stock, but I cannot really recommend individuals to buy it.

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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.

Carrier scattering in metals and semiconductors. By V. F. GANTMAKHER and Y. B. LEVINSON. Pp. xviii + 459. Amsterdam: North-Holland, 1987. Price Dfl 280.00.

Atomic physics, 10 (Proceedings of the international conference held in Tokyo, August 1986). Edited by H. NARUMI and I. SHIMAMURA. Pp. xi + 463. Amsterdam: North-Holland, 1987. Price Dfl 150.00.