

first three terms in equation (6); the summation of x_{ji}^2 and of y_{ki}^2 can be done simultaneously with the summation of the coefficients $x_{ji}y_{ki}$.

References

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International Union of Crystallography

Deposition of Tables of Anisotropic Thermal Parameters

In its report to the IUCr Executive Committee and Tenth General Assembly of the Union which was held in Amsterdam, 7–15 August 1975, the Working Party on Information Services proposed that tables of anisotropic thermal parameters should, in general, be deposited together with structure factor tables.

With the agreement of the Executive Committee and the Chairman of the Commission on Journals, this proposal has now been implemented. All tables of anisotropic thermal parameters (except for very short tables) will be deposited,

unless the Co-editor accepting the paper specifically requires that they be published. If a table gives both positional and thermal parameters both will be deposited but the positional parameters will also be published.

Two copies of the tables will be required. They should be in typescript, and not reduced photographically. They should be headed descriptively on the first page, with column headings recurring on each page, and pages should be numbered clearly to ensure the correct sequence. The optimum page size is up to 30 cm × 21 cm, whilst the limiting page size is 33 cm high × 24 cm wide. Each set of material to be deposited should be accompanied by the title, the authors' names and addresses and the abstract from the parent paper.

Book Reviews

Works intended for notice in this column should be sent direct to the Book-Review Editor (J. H. Robertson, School of Chemistry, University of Leeds, Leeds LS2 9JT, England). As far as practicable books will be reviewed in a country different from that of publication.

The solid state. By H. M. ROSENBERG. Pp. 235. Oxford: Clarendon Press, 1975. Price £2.75 (paper).

In this paperback H. M. Rosenberg approaches the subject in a refreshingly practical and down-to-earth way. The student beginner is introduced to dislocations, vacancies, interstitials, *etc.* in some detail before learning about Bloch waves and electron band structure. The applied, almost do-it-yourself approach is maintained throughout the book, with emphasis on advanced experimental techniques, such as electron and field-ion microscopy, ESCA, metallography (to name just a few), and with little importance attached to abstract ideas. In those few cases where difficult concepts are treated, very illuminating figures (such as the one illustrating *Umklapp*) are provided.

Devices are treated in great detail. While most texts may at most treat the *p-n* junction and the transistor, in this volume a wide variety of devices, such as the bipolar transistor, FET's, LED's and many others are treated.

The treatment of electron band theory and phonons is short and may even be regarded as weak, however, this may be justified for an introductory book of this kind, as is the courageous omission of superconductivity. This attitude is reminiscent of that of Pauli at the ETH, who treated in his courses classical physics in great detail and thoroughness, at the expense of omitting quantum mechanics. His reasoning was, that if students are taught advanced subjects, necessarily in a superficial way (in an undergraduate course), they may end up feeling that they understand everything; while the judicious omission of some of the most exciting subjects leaves them in a state of curiosity when they graduate, a curiosity that may be preserved throughout their lives.

I feel that the exercise problems in the book are somewhat of a routine nature, and that a few more difficult and stimulating ones (perhaps requiring some further reading) for advanced students would be very desirable.

In addition to engineering students (and perhaps chemistry, biology, and even humanity students) I would strongly recommend the book as required reading for advanced graduate courses in the theory of solids. Many students graduate nowadays from such courses with some technical competence in the handling of Green functions, Feynman diagrams, and even renormalization groups, without the faintest understanding how a transistor works and what a dislocation is. A compulsory examination on the material of this book can add perspective and also some genuine understanding to students of this type.

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Introduzione alla fisica dei materiali. By G. CAGLIOTI. Pp. xvi + 381. Bologna: Zanichelli, 1974. Price 11.800 Lire.

Despite its title ('Introduction to the Physics of Engineering Materials' according to the English synopsis provided on p. XIII), this is a very fundamental book on the basic physical principles needed in the development of a scientifically sound interpretation of the properties of materials. Caglioti's concept is to develop a unified picture starting from quantum mechanics and arriving at macroscopic properties of materials. The first three chapters deal with atoms, molecules, and