

these representations in detail and compare them with the results for ideal p.d.f.s based on the central limit theorem.

The text is written in a uniform style where words and diagrams have been carefully chosen and are used sparingly to great effect. The ideas involved are clearly exposed without an excess of detail obscuring the underlying principles. The text has been composed by the authors themselves, using L<sup>A</sup>T<sub>E</sub>X, resulting in few typographic errors but with its characteristic poor hyphenation of words. To my taste, titles and subtitles are used too sparingly with wording that often does not enable the content to be easily identified, and it is disappointing that the references do not contain the terminal page numbers of the works cited. The authors provide an internet document correcting known typographic errors of the book (<http://chemsg7.tau.ac.il/xtal/corstat/corstat.html>).

A reader needs a good grounding in mathematics to find a way through the Fourier transforms and other algebra necessary for an understanding of intensity and phase statistics. A knowledge of probability theory and statistics is not necessary. I found this text most valuable to read but requiring a high level of concentration. I thoroughly recommend its study.

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*Acta Cryst.* (1997). A53, 252

**Symmetry of crystals: Introduction to *International Tables for Crystallography* Vol. A.** By THEO HAHN and HANS WONDRA TSCHKE. Pp. 144. Sofia: Heron Press, 1994. Price (paper) DM 25. ISBN 954-580-007-0.

This book is intended as an introduction to the space-group symmetries of crystals and their compilation in *International Tables for Crystallography* Volume A. It has its origin in lecture notes for a series of Summer Schools on the Symmetry of Crystals, presented by the authors since 1988, most recently in Bulgaria in 1994.

The text begins with a review of group theory (Chapter 1) and the representation of crystallographic symmetry operations by matrices (Chapter 2). Group theory is then used to describe space-group types (Chapter 3), changes in coordinate systems (Chapter 4), group-subgroup relations (Chapter 5), generators of space groups (Chapter 6), space-group projections (Chapter 7) and systematic absences and reflection conditions (Chapter 8).

The set of 16 varied problems provided is a useful feature of the work. Included are problems using group theory and matrix algebra applied to general position and symmetry diagrams, coordinate transformations and phase transitions. Also included are examples of interpretation of a reciprocal lattice, a set of precession photographs and line splitting in a powder pattern. The solutions to all problems are complete and clearly presented.

The style of the text is similar to that of the five introductory chapters in Volume A itself. Readers who desire a more

complete group-theory basis to amplify those chapters will find this new book very useful. However, those who wish simply to use the Tables, but not necessarily master the underlying theory, are unlikely to find much additional help in this Introduction to Volume A over and above that already provided by Professor Hahn in his *Brief Teaching Edition* of Volume A.

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*Editor's note:* Heron Press is a three-year-old publishing house whose main goal, according to its Editor in Chief, Dr Ilya Petrov, 'is to fill the gap, existing in the Balkans, in the publishing of scientific literature and to open a kind of exchange of scientific literature between our region and the West'. The Press's registered offices are located at 18 Oborishte Str., 1504 Sofia, Bulgaria.

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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.*

**Molecular modeling of inorganic compounds.** Edited by P. COMBA and T. W. HAMBLEY. Pp. x + 197. Weinheim: VCH Verlagsgesellschaft mbH, 1995. Price DM 197.00. ISBN 3-527-29076-1. A review of this book, by Michal Sabat, has been published in the October 1996 issue of *Acta Crystallographica Section B*, page 1058.

**Electrooptic effects in liquid crystal materials.** By L. M. BLINOV and V. G. CHIGRINOV. Pp. xvii + 464. Berlin: Springer-Verlag, 1996. Price DM 89.00 (Soft cover). ISBN 0-387-94708. This is a 'Study Edition' of the 1993 hard-cover version of this work. The book 'by two of the leaders in liquid-crystal research in Russia, presents a complete and accessible treatment of virtually all known phenomena occurring in liquid crystals under the influence of electric fields'.

**Crystal identification with the polarizing microscope.** By R. E. STOIBER and S. A. MORSE. Pp. xiv + 358. London: Chapman & Hall, 1994. Price £24.95 (paperback). ISBN 0-412-04821-3. The book is 'intended to serve the needs of industrial and forensic scientists as well as petrographers who deal with rocks'.

**Metamorphic crystallization.** By R. KRETZ. Pp. xiv + 507. Chichester: John Wiley & Sons, 1994. Price £22.50 (paperback). ISBN 0-471-94214-6. This book 'is an introduction to the science of metamorphism, prepared for senior undergraduate and graduate students in geology and geochemistry'.