Acta Crystallographica	
Sections A, B & C (combined subscription)	Add Dkr 380
Section A only	Add Dkr 90
Section B only	Add Dkr 90
Section C only	Add Dkr 220
Journal of Applied Crystallography	Add Dkr 70

Prices of back numbers

All these prices are fixed in Danish kroner. The US dollar equivalents are no longer given because of rapid fluctuations in exchange rates.

Acta Crystallographica

Complete volumes, regular price per volume

Vols. 1–23	Dkr 1275
Combined Vols. 24–38	Dkr 4600
Combined Vols. 39–41	Dkr 5250
Vols. A24–A41	Dkr 1275
Vols. B24–B38	Dkr 3500
Vols. B39–B41	Dkr 1275
Vols. C39–C41	Dkr 3000

Complete volumes, reduced price for individuals

Vols. 1–23	Dkr 350
Combined Vols. 24–38	Dkr 1300
Combined Vols. 39–41	Dkr 1450
Vols. A24–A41	Dkr 350
Vols. B24–B38	Dkr 1050
Vols. B39–B41	Dkr 350
Vols. C39–C41	Dkr 850

Single parts

Single parts of Volumes 1–23 are not available. The price of single parts of any Section of other Volumes is Dkr 320.

Cumulative Indexes, regular price

Vols. 11–23 (1958–1967)	Dkr 120
Vols. 24–28 (1968–1972)	Dkr 120
Vols. 29–38 (1973–1982)	Dkr 150

Cumulative Indexes, reduced price for individuals

Vols. 11–23 (1958–1967)	Dkr 60
Vols. 24–28 (1968–1972)	Dkr 60
Vols. 29–38 (1973–1982)	Dkr 75

A few copies of the cumulative index for Volumes 1–10 (1948–1957) are also available, free of charge.

Journal of Applied Crystallography

Complete volumes, regular price per volume

Vols. 1–18	Dkr 1275

Complete volumes, reduced price for individuals

Vols. 1–18	Dkr 400

Single parts

The price for single parts of any volume is Dkr 320.

Orders

Orders for *Acta Crystallographica* and *Journal of Applied Crystallography* may be addressed to Munksgaard International Publishers Ltd., 35 Nørre Søgade, DK-1370 Copenhagen K, Denmark. Orders from subscribers in North America may alternatively be placed through Polycrystal Book Service, PO Box 27, Western Springs, Ill 60558, USA.

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.

Acta Cryst. (1985). A**41**, 621–622

Methods and applications in crystallographic computing. Papers presented at the International Summer School on Crystallographic Computing held at Kyoto, Japan, 18–27 August 1983. Edited by S. R. HALL and T. ASHIDA. Pp. ix + 506. Clarendon Press, Oxford, 1984. Price £25.00.

This volume is the latest in a series containing the lectures given at Summer Schools sponsored by the IUCr Commission on Crystallographic Computing. The text of some 34 presentations, as well as a number of brief contributions by participants, is included, covering many aspects of crystallographic computing. Any crystallographer browsing through the index will recognise the names of many accepted experts in the field. It would be impossible within the space constraints of this review to comment in detail on every paper, so a brief description of the sections of the book will be given.

The first section, quite logically, is entitled *Data measurement and processing.* The reader is given a quick overview of diffractometer control techniques, and some of the more up-to-date methods of data collection in a couple of chapters by W. Clegg. H. D. Flack then looks at the correction of data for systematic effects. These chapters are bracketed by descriptions of topics that are less routinely available; the use of area detectors by U. W. Arndt, and a description of the data collection systems at the 'Photon Factory', a synchrotron radiation facility at Tsukuba, Japan.

Solution techniques covers a wide range of techniques. J. E. Johnson describes the application of Patterson methods to the structures of proteins. H. Shenk and his co-workers present three chapters on structure invariants and semi-invariants, covering an introduction to triplets and quartets, and their generation and application in symbolic addition programs such as *SIMPEL.* Multi-solution methods, as exemplified by the *MULTAN* family of routines, are described by M. M. Woolfson. The final three chapters in this section are devoted to macromolecules,

with direct methods being covered by J. Karle, isomorphous replacement and anomalous dispersion techniques by G. Bricogne and the novel technique of information theory by Varghese & Wilkins.

Refinement techniques are introduced by two chapters on least-squares and related methods by J. S. Rollett and R. Diamond. The rest of the section is devoted to large molecules: N. Isaacs discusses the use of the fast-Fourier transform as applied to least squares and J. L. Sussman shows how stereochemical information can be used in the form of constraints and restraints to facilitate the refinement of macromolecules. Refinement also includes phase extension techniques, which are covered by G. Bricogne, and the section concludes with examples of the refinement of myoglobin and cytochrome c by T. Takano, and 2Zn insulin by Sakabe, Sasaki & Sakabe.

Accurate electron density analysis shows how much information can be obtained when the X-ray diffraction experiment is pushed to the limits of its accuracy. N. Kato gives a brief overview of diffraction theory and practice after which some examples are given. The measurement of electrostatic properties is discussed by M. A. Spackman & R. F. Stewart, and F. Marumo looks at the X-ray determination of *d*-electron distributions in transition-metal compounds. The section ends with some words of caution by E. N. Maslen who covers the problems in high-precision electron density studies.

Computer software and hardware is possibly the most disappointing section comprising only two papers. One entitled *Adaptive scientific software packages: application flexibility with hardware efficiency* is by S. R. Hall who restricts himself to the *XTAL* package. The other, by W. Furey Jr, is an introduction to array processors and their programming.

Computer database techniques is a short section with I. D. Brown covering the basics of database design and P. Murray-Rust showing how numeric databases can be used for far more complex tasks than simple bibliographic searching.

The final three sections cover *Computer graphics*, *Powder diffraction* and *Electron diffraction and microscopy*. R. Diamond gives a short overview of the hardware and software required for interactive vector graphics, which is followed by a detailed example of a molecular modeling system on an Evans and Sutherland graphics system by Pflugrath, Saper & Quiocho. The measurement and analysis of powder data is covered in some detail by R. Shirley. The last section contains three papers: *Gas electron diffraction* by K. Kuchitsu, *Electron microscopy at the atomic level* by N. Uyeda and finally *Lattice imaging techniques and applications* by S. Iijima.

The book is completed by some 18 brief contributions by participants, covering the gamut from proteins to the use of robots in the X-ray laboratory.

This volume is produced directly from typewritten manuscripts provided by the authors all of which are of good quality, but a number of those by contributors whose native tongue is not English contain typographical errors that would presumably have been corrected at the proof-reading stage had the book been typeset. There is a wealth of information between the covers of this book that should be of use to all involved in the field. But I would caution the prospective buyer that if they already own one or more of the previous Summer School proceedings they will find much duplication of contents.

PETER S. WHITE

Department of Chemistry
University of New Brunswick
Fredericton
NB E3B 6E2
Canada

Acta Cryst. (1985). A41, 622

The structure and properties of crystal defects. Edited by V. PAIDAR and L. LEJČEK. Pp. xii + 463. Elsevier, Amsterdam, or (for Eastern Europe) SNTL Publishers, Spalena 51, 113 02 Praha 1, Czechoslovakia, 1984. Price US $ 113.50, Dfl 295.00.

This book records the proceedings of the symposium of this title, held in Liblice, Czechoslovakia, in June 1983.

The book contains 38 articles altogether, covering the following subjects: the structure and properties of dislocations in metals and alloys with close-packed and b.c.c. lattices, the structure and properties of grain boundaries and the collective behaviour and interaction of defects.

In particular, the book deals with defect structure at the atomic level, and the mechanical properties of crystals with defects. However, point defects and external surfaces, and also the electrical properties of defects and defects of semiconductors, are excluded. Furthermore, the book contains a few articles on important crystal defects and cracks, as well as the equilibrium configuration of dislocations around a crack tip, and a dislocation model of fracture.

The book gives a good survey of the latest ideas and the progress that has been made in theoretical and experimental work on dislocation theory. The level of the book is particularly suitable for postgraduate students and research workers.

V. K. LINDROOS
M. K. VEISTINEN

Helsinki University of Technology
Department of Mining and Metallurgy
Vuorimiehentie 2 A
SF-02150 Espoo 15
Finland

Acta Cryst. (1985). A41, 622-623

Dislocations in solids. Vol. 6. **Applications and recent advances.** Edited by F. R. N. NABARRO. Pp. 557. Amsterdam: North-Holland, 1983. Price US $ 104.25, Dfl 245.00.

In contrast to the previous five volumes in this series, this volume consists of some applications of dislocation concepts to practical problems in metallurgy and materials sciences. It contains eight up-to-date reviews in one volume and is thus very convenient for readers who are interested in the behaviour of dislocations.