

algorithm was successfully tested with most published cases where structures were shown to be described in a space group with too low symmetry. In addition, several new cases were identified with the present program or one of its derivatives (in Turbo Pascal and VAX Fortran) over the three years that the program has been in use. The program contains 41 test data sets and their appropriate metrical symmetry. Special options of the program allow the user to investigate the symmetry of sub- and superlattices as well. All relevant output to the screen is also written to a disk file.

Documentation: The program contains an on-line Help feature to explain the available program options with appropriate references to the literature.

Availability: The program, in the executable form only, is available on 360 Kb 5.25" floppy disks.

Keywords: Lattice symmetry, metrical symmetry, microcomputer program.

References

- Křivý, I. & Gruber, B. (1976). *Acta Cryst.* **A32**, 297–298.
 LePage, Y. (1982). *J. Appl. Cryst.* **15**, 255–259.
 Marsh, R. E. & Herstein, F. H. (1988). *Acta Cryst.* **B44**, 77–88.

Crystallographers

J. Appl. Cryst. (1988). **21**, 579

This section is intended to be a series of short paragraphs dealing with the activities of crystallographers, such as their changes of position, promotions, assumption of significant new duties, honours, etc. Items for inclusion, subject to the approval of the Editorial Board, should be sent to the Executive Secretary of the International Union of Crystallography (J. N. King, International Union of Crystallography, 5 Abbey Square, Chester CH1 2HU, England).

Professor **J. C. Clardy**, Professor of Chemistry, Cornell University, Ithaca, New York, USA, is the recipient of the 1987 Akron Section Award of the American Chemical Society, for his extensive and innovative work on the use of X-rays for determining the structures of organic molecules.

The Royal Society has awarded the 1988 Hughes Medal to Professor **A. Howie**, FRS, and Dr **M. J. Whelan**, FRS, in recognition of their contributions to the theory of electron diffraction and microscopy, and its application to the study of lattice defects in crystals. Professor Howie and Dr Whelan developed, in the early 1960s, the theory of electron diffraction to enable the images of crystals obtained from transmission

electron microscopy to be used to compute lattice defects such as dislocations.

Dr **Isabella L. Karle**, Senior Scientist for structural chemistry at the Naval Research Laboratory and head of the X-ray diffraction section of NRL Laboratory for the Structure of Matter in Washington, DC, USA, has been awarded the Department of the Navy Award for Distinguished Achievement in Science, for her contributions to the development and application of the symbolic addition procedure in the determination of crystal structures by X-ray crystallography.

International Union of Crystallography

J. Appl. Cryst. (1988). **21**, 579

Acta A – a new look for 1989

From January 1989, *Acta Crystallographica* Section A will be published monthly. Additionally it will incorporate a new *Fast Communications* section. This section will include papers covering all aspects of crystallography on topics of current interest for which rapid publication is essential; these papers will be speedily refereed and prepared on a desktop publishing system in Chester for onward transmission to the printer as camera-ready copy. The average publication time from the receipt of a paper by a Co-editor until it appears in print will be about 3 months. In addition, Letters to the Editor will be considered for this new section, along with reports of IUCr Commissions.

Call for papers for the new Fast Communications Section

Authors are therefore requested to submit suitable papers to any of the Co-editors of *Acta Crystallographica* or *Journal of Applied Crystallography*. Authors should follow the usual *Notes for Authors* for these journals, but additionally:

The topic should be of sufficient interest to merit special treatment and the letter accompanying the submission should identify the aspect which makes speedy publication essential;

The paper should not exceed two printed pages (about 2000 words or eight pages of double-spaced typescript including tables and figures);
 Figures should be clearly lettered;

If the paper is available on 3.5 or 5.25" IBM PC-compatible or Macintosh diskettes it would be helpful if these could be sent with the manuscript together with details of the word-processing package used.

Papers submitted for the *Fast Communications* section but judged by the Co-editor *not* to merit rapid publication will be considered for publication in the appropriate section of *Acta Crystallographica* or in *Journal of Applied Crystallography*.

New Commercial Products

Announcements of new commercial products are published by the Journal of Applied Crystallography free of charge. The descriptions, up to 300 words or the equivalent if a figure is included, should give the price and the manufacturer's full address. Full or partial inclusion is subject to the Editor's approval and to the space available. All correspondence should be sent to the Editor, Professor M. Schlenker, Editor Journal of Applied Crystallography, Laboratoire Louis Néel du CNRS, BP166, F-38042 Grenoble CEDEX, France.

The International Union of Crystallography can assume no responsibility for the accuracy of the claims made. A copy of the version sent to the printer is sent to the company concerned.

J. Appl. Cryst. (1988). **21**, 579–580

X-Ray Diffraction Radiation Enclosure that Features Lead-Plastic Access Panels

A new enclosure developed for Philips/Norelco X-ray Diffraction Generators that provides high visibility and effective radiation shielding is being introduced by Charles Supper Company, Inc. of Natick, Massachusetts.

The **Supper Radiation Enclosure** features two clear lead-plastic sliding windows in the front and removable sliding side/rear panels, all of which open a full 18 in $W \times 23$ in H , providing access to the large 45 in² interior working area. To further prevent radiation exposure to personnel, every access panel is safety interlocked.



The Supper Radiation Enclosure

Equipped with 1 in round red warning lights centered above each set of window and door panels on all four sides, the Supper Radiation Enclosure has a heavy-gauge aluminium frame, 7 mm thick leaded plastic windows, and 9.5 mm thick aluminium door panels. Shipped partially assembled, the unit measures 46 in $L \times 46$ in $W \times 30$ in H .

The Supper Radiation Enclosure is priced from \$3800 (list). Literature is available on request.

Charles Supper Company, Inc., Lee Supper, Marketing, 15 Tech Circle, Natick, MA 01760, USA

J. Appl. Cryst. (1988). **21**, 580

Philips Analytical Acquires Marketing Rights for Bench-Top X-ray Diffractometer

A marketing agreement signed between Philips Analytical and Durham-based Bede Scientific has enhanced Philips capability in the field of semiconductor testing and quality control. Under the agreement Philips Analytical acquires sales, service and marketing rights for **Bede's QC1 Quality-Control Double-Crystal Diffractometer** on a worldwide basis excluding North America.

The only instrument of its kind available in the UK, the QC1 high-resolution X-ray diffractometer brings new levels of sophistication to quality control in the semiconductor industry. Optimised for speed and ease of use, its single-cabinet design and bench-top compactness make the instrument ideal for clean-room applications. See *J. Appl. Cryst.* (1987). **20**, 272 for full product details.

Philips Scientific, York Street, Cambridge CB1 2PX, England.

J. Appl. Cryst. (1988). **21**, 580

Sietronics Laser Alignment Device

The **Laser Alignment Device** is a new concept in X-ray-free alignment of goniometers, monochromators and crystals; in fact any piece of X-ray analytical instrumentation.

It consists of 3 components: (1) The Laser Device – takes the place of an X-ray tube in the tube shield; (2) The TOA Setting Jig – allows precise setting of take-off angle as well as azimuth; (3) The Shutter Puller – allows operation of the tube-shield shutters without use of the generator.

The vertical height of the beam-deflecting mirror is adjusted to match the height of the actual X-ray tube anode (setting laser spot to match a previously obtained fluorescent spot – this only needs setting once).

The laser beam will give specular reflection off plane and curved crystal surfaces and off small mirrors mounted in place of the specimen.

Sietronics Pty Limited, Post Office Box 84, Hawker, ACT 2614, Australia

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.

J. Appl. Cryst. (1988). **21**, 580

Organic solid state chemistry. (Vol. 32 of Studies in organic chemistry.) Edited by G. R. Desiraju. Pp. xii + 550. Amsterdam; Elsevier Science Publishers, 1987. Price Dfl360, US\$175.50.

With increasing research interest in the physical and chemical properties of organic solids, the appearance of a monograph so entitled should be timely. Unfortunately, since most of the chapters are devoted to organic materials which are single crystals, this volume goes only part of the way in covering 'solid state' organic chemistry. As a consequence, the overall coverage of this book is not as comprehensive as perhaps the title might suggest.

The subject matter is presented as a collection of 14 essentially independent reviews from a total of 22 contributors, each complete with its own reference section, which have been loosely grouped together under three main headings: (i) *Organic solid state reactions* which include some fairly classical reactions such as hydrogen abstraction, photodimerization and photopolymerization; (ii) *The stereochemistry of molecules in the solid state* with discussions on guest-host complexes, gas-solid reactions and polymorphism; and (iii) *Intermolecular interactions in the solid state* covering topics such as molecular motions, conformational polymorphism, non-bonded contacts, molecular packing and phase transitions in solids. With the emphasis on crystalline solids, the results of X-ray crystallographic studies feature prominently in the discussions.

The above categories are by no means exclusive, resulting in considerable duplication across the various sections. Overall, there is the impression of a lack of systematic coverage and coherence that a single-authored work might have had. Although no book could expect to cover all aspects of organic solid state chemistry, there are some highly topical areas which have been omitted or are hardly mentioned, including structural aspects of electrical or ionic conduction, ionic and chemical sensors, non-linear optical properties and photochromism.

With the exception of one or two poorly reproduced photographs, the book is

generally well illustrated and clearly presented although, as a consequence of 'camera-ready' production, the text has as many print styles as there are chapters. Arguably with the ready availability of MS-DOS based personal computers and the adoption of an agreed text processing package, this lack of uniformity in presentation could have been easily avoided.

Given its high price, this book is unlikely to attract much in the way of personal purchase. Nonetheless, it could certainly be recommended to non-specialists such as synthetic organic chemists who require an introduction to the structural aspects of the chemistry of crystalline organic compounds. It remains to be seen, however, whether this book will be more widely adopted as a reference text.

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Books Received

J. Appl. Cryst. (1988). **21**, 580

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.

Quantum aspects of molecular motions in solids: Springer Proceedings in Physics Vol. 17 – Proceedings of an ILL-IFF Workshop, September 24–26, 1986. Edited by A. Heidemann, A. Magerl, M. Prager, D. Richter and T. Springer. Pp. xii + 221. Berlin: Springer-Verlag, 1987. Price DM 85. A review of this book, by Alison B. Walker, has been published in the May 1988 issue of *Acta Crystallographica*, Section A, page 399.

Physics of phonons. Edited by T. Paszkiewicz. (Proceedings of the XXIII Winter School of Theoretical Physics, Karpacz, Poland, February 26–28, 1987. Volume 285 of *Lecture notes in physics*.) Pp. x + 486. Berlin: Springer-Verlag, 1987. Price DM80. A review of this book, by William Cochran, has been published in the September issue of *Acta Crystallographica*, Section A, page 765.

Fifty years of neutron diffraction: the advent of neutron scattering. Edited by G. E. Bacon. Pp. 280. Bristol: Adam Hilger, 1987. Price £30.00. A review of this book, by S. Komura, has been published in the September 1988 issue of *Acta Crystallographica*, Section A, page 766.