

these measurements are made by a manual device with digital counters; each measurement must be recorded by hand and combined to yield orientation parameters. This procedure is tedious and subject to human error at several stages.

We have devised a more efficient procedure using a system which is commonly employed for the measurement of contour lengths of DNA molecules photographed in the electron microscope. We illuminate the oscillation photograph from below or project it from above with a photographic enlarger. Each fiducial mark and reflection is located with the magnifying cursor of the digitizer and, upon command, its film coordinates are transmitted to the calculator. The resolution of each measurement is 250  $\mu\text{m}$ .

The calculator is programmed to list each pair of coordinates and to calculate the correction constants which describe the crystal orientation (Nyborg, Wonacott, Thierry & Champness, 1975). The reproducibility of these numbers is approximately 50  $\mu\text{m}$ . All of the measurements and calculations required to process a single film can be completed in less than four minutes.

Further details, including a listing of the program, are available from the authors.

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## Crystallographers

*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, 13 White Friars, Chester CH1 1NZ, England).*

Dr **Carroll K. Johnson**, Oak Ridge National Laboratory, Tennessee, has been elected Vice-President of the American Crystallographic Association for 1976 and will succeed Dr **Isabella Karle** as President in 1977. Professor **D. K. Smith**, Department of Geochemistry and Mineralogy at the University of Pennsylvania, has been elected Secretary of the ACA for the next three years, until the end of 1978. Professor **C. N. Caughlan**, Chairman of the Department of Chemistry at Montana State University, continues as Treasurer of the ACA until the end of 1976.

Dr **Jerome Karle**, Chief Scientist, Laboratory for the Structure of Matter, Naval Research Laboratory, Washington, has been elected a member of the National Academy of Sciences.

Sir **Alan Cottrell**, Master of Jesus College, Cambridge, has been elected as one of the first six foreign associates of the U.S. National Academy of Engineering.

## International Union of Crystallography International Tables for X-ray Crystallography

Volume I of *International Tables for X-ray Crystallography* is out of print. The Executive Committee of the Union has decided not to reprint this volume because the new volumes on symmetry tables are well under way. The first volume in the new series, on direct space, will contain much more information than the old Volume I and is expected to be published in 1977. Further details of the availability and the price of the new volume on direct space will be announced nearer to the date of publication.

The remaining volumes in the present series continue to be available. Volume II (*Mathematical Tables*) and Volume III (*Physical and Chemical Tables*) cost £9.50 each whilst Volume IV (*Revised and Supplementary Tables for Volumes II and III*) costs £11.50. Copies may be obtained at the special reduced prices of £5.00 for Volume II or III and £7.00 for Volume IV by *bona fide* crystallographers, who must

give an undertaking when purchasing that the volume is for their personal use only. Orders may be placed direct with the publishers, The Kynoch Press, Witton, Birmingham B6 7BA, England, or with Polycrystal Book Service, P.O. Box 11567, Pittsburgh, Pa. 15238, U.S.A., from whom prospectuses may also be obtained.

## *Symmetry Aspects of M. C. Escher's Periodic Drawings*

This extremely popular book by Professor Caroline MacGillavry has been reprinted for the Union and is now available from Bohn, Scheltema & Holkema, Scientific Publishers (formerly Oosthoek, Scheltema & Holkema), Emmalaan 27, Utrecht, The Netherlands, at a price of 40 Netherlands Guilders. The book contains 42 plates (30 black-and-white and 12 in colour) of periodic drawings by the Netherlands artist M. C. Escher. Their symmetry aspects are discussed by Professor MacGillavry. Apart from its artistic value, the book is of great use for teaching purposes. An identical edition, entitled *Fantasy and Symmetry* is being published simultaneously in North America by Harry Abrams, Inc. and copies may be ordered through Polycrystal Book Service, P.O. Box 11567, Pittsburgh, Pa. 15238, U.S.A., or any bookseller.

## Notes and News

*Announcements and other items of crystallographic interest will be published under this heading at the discretion of the Editorial Board. The notes (in duplicate) should be sent to the Executive Secretary of the International Union of Crystallography (J. N. King, International Union of Crystallography, 13 White Friars, Chester CH1 1NZ, England).*

### *Status and Future Potential of Crystallography*

An in-depth review of the above title has been produced by the U.S. National Research Council. The report has been prepared by the U.S. National Committee on Crystallography and is based on a two-day conference sponsored by the Committee in 1975 and the results of a mail survey conducted by the Committee. The Committee's work was supported by the National Science Foundation.

An objective of the report is to point out the vitality and extensive range of crystallographic studies. This is done by emphasizing the broad relationship of crystallography to numerous other scientific disciplines, by describing its inherent diversity of subject matter for experimental and theoretical investigation, and by outlining numerous promising areas for future research. Recent advances in