Tokonami's form factor, (*b*) values calculated with the fitting curve presented in this note and (*c*) those calculated using the functions proposed by Tokonami for the Cu $K\alpha$ and Mo $K\alpha$ ranges, respectively.

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*Acta Cryst.* (1983). A**39**, 269

## X-ray diffraction from nonstoichiometric titanium sulfide containing stacking faults: errata.

By M. ONODA and I. KAWADA, *National Institute for Research in Inorganic Materials, Sakura-mura, Niihari-gun, Ibaraki* 305, *Japan*

(*Received* 17 *September* 1982; *accepted* 10 *October* 1982)

**Abstract**

Mis-expressed terms in equations (13) in Onoda & Kawada [*Acta Cryst.* (1980), A**36**, 134–139] should be corrected. All $\exp(-i2\pi\zeta)$, $\exp(-i\pi\zeta/2)$, $\exp(-i\pi\zeta)$ and $\exp(-i3\pi\zeta/2)$ on page 137 are to be replaced respectively by $\exp(i2\pi\zeta)$, $\exp(i\pi\zeta/2)$, $\exp(i\pi\zeta)$ and $\exp(i3\pi\zeta/2)$.

All relevant information is given in the *Abstract*.

*Acta Cryst.* (1983). A**39**, 269

## Intensity distribution in powder X-ray diffraction from nonstoichiometric titanium sulfide containing stacking faults: errata.

By M. ONODA, M. SAEKI and I. KAWADA, *National Institute for Research in Inorganic Materials, Sakura-mura, Niihari-gun, Ibaraki* 305, *Japan*

(*Received* 17 *September* 1982; *accepted* 1 *October* 1982)

**Abstract**

All $\exp(-i2\pi\zeta)$, $\exp(-i\pi\zeta/2)$, $\exp(-i\pi\zeta)$ and $\exp(-i3\pi\zeta/2)$ in equations (21) in Onoda, Saeki & Kawada [*Acta Cryst.* (1980), A**36**, 952–957] are mis-expressed and to be replaced respectively by $\exp(i2\pi\zeta)$, $\exp(i\pi\zeta/2)$, $\exp(i\pi\zeta)$ and $\exp(i3\pi\zeta/2)$.

All relevant information is given in the *Abstract*.

# International Union of Crystallography

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### *International Tables for Crystallography*

Professor A. J. C. Wilson has been appointed Chairman of the Union's Commission on *International Tables*, and Editor in charge of a proposed revision of Volumes II, III and IV. Following his recent retirement as Professor of Crystallography at the University of Birmingham he has moved to Cambridge. His new address is Crystallographic Data Centre, University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, England.

Professor U. Shmueli, Chemistry Department, Tel-Aviv University, has been appointed Editor of a new volume of *International Tables* on reciprocal space.

Since 1973 the Commission has been preparing the material for a totally revised and extended edition of the tables of symmetry groups. The results of these years of collaborative effort have led to the production of completely new tables on the 17 plane groups and 230 space groups, comprising about 630 pages. This work is complemented by a comprehensive introduction of about 200 pages in which symmetry is discussed and the theory and use of the tables is described in detail. It is edited by Th. Hahn and will be published for the Union by D. Reidel Publishing Company. The publication of this volume was scheduled for the end of 1982 but because of various delays it is not now expected to be available before mid 1983.

*Table of Contents:* Foreword. Preface. Part I: Tables for Plane Groups and Space Groups. 1. Symbols and Terms Used in this Volume. 2. Guide to the Use of the Space-Group Tables. 3. Space-Group Determination and Diffraction Symbols. 4. Synoptic Tables of Space-Group Symbols. Group-Subgroup Relations. 5. Transformations in Crystallography. 6. The 17 Plane Groups (Two-Dimensional Space

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Groups). 7. The 230 Space Groups. Part II: Symmetry in Crystallography. 8. Introduction to Space-Group Symmetry. 9. Crystal Lattices. 10. Point Groups and Crystal Classes. 11. Symmetry Operations. 12. Space-Group Symbols and Their Use. 13. Isomorphic Subgroups of Space Groups. 14. Lattice Complexes. Subject Index.

The volume costs 385 Netherlands Guilders. Personal copies may be obtained at the reduced price of 215 Netherlands Guilders.

The remaining stocks of Volumes II (Mathematical Tables) and IV (Revised and Supplementary Tables to Volumes II and III) of *International Tables for X-ray Crystallography* have been transferred from The Kynoch Press to Reidel, who are currently reprinting Volume III (Physical and Chemical Tables). Volume II costs 130 Guilders and Volumes III and IV 155 Guilders. Personal copies may be obtained at the reduced prices of 77 Guilders (Volume II) and 105 Guilders (Volumes III and IV).

Copies of all these publications may be ordered direct from the publisher, D. Reidel Publishing Company, PO Box 17, 3300 AA Dordrecht, The Netherlands, from Polycrystal Book Service, PO Box 27, Western Springs, Illinois 60558, USA, or from any bookseller.

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### *Crystallographic Statistics*

The Twelfth International Congress of Crystallography, held in Ottawa in 1981, included for the first time a session entirely devoted to crystallographic statistics. Eight papers were presented at the session, and there were several papers on related topics presented in other sessions. Fifteen of the papers have now been published by the Indian Academy of Sciences at a very attractive price. In most cases the texts have been expanded by the authors from the versions presented at the Congress; three papers published in full elsewhere are represented by extended abstracts. The contributions (abbreviated titles) are: *Introduction* by A. J. C. Wilson; *Crystallographic Statistics – General Review* by H. Hauptman; *Bayesian Statistics – An Overview* by S. French and S. Oatley; *Intensity Statistics – Survey, Computer Simulation and the Heavy-Atom Problem* by U. Shmueli; *Non-Ideal Distributions in Theory and Practice* by U. Shmueli and A. J. C. Wilson; *The Probability of Validity of Phase Relations* by G. B. Mitra and S. Ghosh; *Effects of Heavy Atoms and Symmetry* by G. D. Nigam and S. Ghosh; *Measurability of Bijvoet Differences* by S. Parthasarathy; *Non-Independence* (Editorial comment); *Statistics of Recorded Counts* by J. L. de Boer; *Alternatives to R Tests* by S. M. Rothstein; *Residual $R_2$ as a Discriminator Criterion* by A. T. H. Lenstra; *Alternatives to Least Squares* (Editorial comment); *Robust/Resistant Technique for Refinement* by W. L. Nicholson, E. Prince, J. Buchanan and P. Tucker; *Statistical Errors and Series Termination in Electron Density* by A. A. Shevyrev and V. I. Simonov; *Data Reduction and Error Analysis* by R. H. Blessing and G. T. DeTitta; *Secondary 'Least-Squares' Minima* by R. Rothbauer; *Wiener Methods for Electron Density* by D. M. Collins and M. C. Mahar. The indexes occupy 13 pages.

Orders for *Crystallographic Statistics: Progress and Problems*, edited by S. Ramaseshan, M. F. Richardson and A. J. C. Wilson (Pp. iv + 313), should be sent to the Indian Academy of Sciences, Bangalore 560 080, India and be accompanied by a remittance. The prices (including postage – surface mail – anywhere in the world) are US $18.00; £9.00; R (Indian rupees) 50.00 (full rate) and US $9.00; £5.00; R (Indian rupees) 25.00 (reduced rate for individuals; copies purchased at reduced rate should not be passed to libraries).

## 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.* (1983). A**39**, 270–271

**Nonlinear phenomena at phase transitions and instabilities.** Edited by R. RISTE. Pp. xii + 481. New York: Plenum, 1982. Price US $59.50.

This book is composed of a collection of manuscripts representing twenty-eight papers presented at a NATO Advanced Study Institute held in Geilo, Norway, 29 March–9 April 1981. It is very similar in format to an earlier work, also edited by Professor Riste, summarizing a similar NATO Institute, *Ordering in strongly fluctuating condensed matter systems.*

The concept of the non-linearity of systems for certain phase transformations was introduced over ten years ago. Efforts, both theoretical and experimental, expended over the ensuing decade to elucidate the nature of these non-linear phenomena form the subject matter of this book. More than one-third of the lectures at the Institute were designed to be of an extended, tutorial nature. The purpose of these invited papers was to develop the necessary background material and to introduce some of the problem areas to be covered in the shorter, more specific research papers. The ten invited papers dealt with the topics of theory and anharmonic properties of structural phase transitions, non-linear excitations, including thermal convection, turbulence, and other instabilities in both solid and hydrodynamical systems, two-dimensional melting, and the phenomena of crystal growth.

An example of the excellent interaction between the 'tutorial' and the 'research' sections of the book is provided by the 'soliton', a concept introduced several years ago as a