

Les structures ont été déterminées par la méthode de l'atome lourd; les phases des facteurs de structure étant calculées à partir des contributions de P et S (ou Se). Ces atomes occupent d'ailleurs des positions spéciales ($\frac{1}{3}, \frac{2}{3}, z$) et ($\frac{2}{3}, \frac{1}{3}, z + \frac{1}{2}$).

L'affinement a été réalisé au moyen de synthèses de

	Distances interatomiques	
	I	II
P-S(e)	1.864 ± 0.030	1.963 ± 0.020
P-C	1.865 ± 0.040	1.907 ± 0.030
C-C	1.38 ± 0.07	1.40 ± 0.05
S(e)PC	112°	114°
CPC	107°	106°
PCC	114°	110°

Fourier normales et généralisées. R final: 12,6% pour I et 7,2% pour II.

La position du CH_3 est peu précise car ce radical est réparti sur deux sites qui se recouvrent partiellement.

Un compte rendu détaillé de ces déterminations paraîtra prochainement au Bulletin des Sociétés Chimiques Belges.

L'étude de ces structures nous a été suggérée par le Prof. J. M. Bijvoet qu'il nous est agréable de remercier ici.

Références

- JELLINEK, F. (1958). *Acta Cryst.* **11**, 626.
 VAN MEERSSCHE, M. (1954). *Bull. Acad. R. Belg. Cl. Sci.* 5° Série, Tome XL, 846.

Acta Cryst. (1959). **12**, 1054

International Union of Crystallography

Conferences in Stockholm, 9–12 June 1959

Under the auspices of the Commission on Crystallographic Apparatus three Conferences were held in Stockholm, Sweden, during the four days 9–12 June 1959. In order to discuss the results of the first phase of an international cooperative project on the Precision Determination of Lattice Parameters, which had been undertaken by the Commission, only a Conference on this subject had been planned originally. Soon plans were made for arranging also a Conference on Counter Methods for Crystal-Structure Analysis. These methods are relatively new and are being developed at several laboratories throughout the world so that bringing the people concerned together at a working meeting was considered most desirable. At the last moment a Conference on X-Ray Wavelength Problems was added as a number of requests had been received for a discussion of this subject which is intimately related to the precision lattice-parameter determination.

By kind invitation of the Karolinska Institutet the meetings were held in the buildings of their Department of Medical Physics in Stockholm, immediately preceding the Second International Symposium on X-Ray Microscopy and X-Ray Microanalysis held there from 15 to 17 June. The Union is much indebted to the Swedish hosts for their cooperation in organizing the meetings and for the great hospitality again received in Stockholm after the Second General Assembly and International Congress was held there in 1951. Thanks are particularly due to Prof. Arne Engström who was already very much engaged in preparations for the forementioned Symposium, but agreed to make the necessary arrangements for the crystallography Conferences; and to Prof. Gunnar Hägg who kindly assisted in the preliminary arrangements for the Conferences, and who organized and arranged an excursion to his laboratory in Uppsala on Saturday 13 June.

The Conferences were a completely new venture for the Union. Unlike the triennial International Congresses and the intermediate Symposia held so far, the attendance at the Stockholm Conferences was limited to a rather

small number of invited speakers and participants actively working in the fields concerned. Only 107 persons, 71 from abroad and 36 from Sweden, registered for one or more of the Conferences. In the programme more time was reserved for discussions than the time usually available for this purpose at other meetings. This made lively discussions possible after practically all papers. In addition, at the end of each of the three Conferences there was a lengthy discussion of the subject concerned which summarized expectations for future developments.

The great success of the Stockholm Conferences demonstrated the usefulness of such meetings at which specific problems are discussed by a small group of specialists. To a large extent the success of the meetings was, however, also due to the tremendous efforts undertaken by the Chairman of the Commission on Crystallographic Apparatus, W. Parrish, in preparing and arranging the meetings, and the Union owes him a deep debt of gratitude for his work. The assistance he received from his secretary, Mrs Dorothy Barrett, who prepared the many memoranda and handled the large amount of correspondence, and from the local secretary, Miss Gudren Bergendahl, who handled the whole registration for the meetings and assisted in the local arrangements, is also gratefully acknowledged.

The attendance of a great number of persons was made possible by generous financial help received from UNESCO through ICSU. In addition a number of U.S.A. Government Agencies provided funds for transportation of several participants from the U.S.A. whose presence at the meetings was of great importance.

The meetings were formally opened on Wednesday 10 June, although the additional Conference on X-Ray Wavelength Problems had already been held on the preceding day. Words of welcome were spoken by A. ENGSTRÖM, on behalf of the Karolinska Institutet, by G. HÄGG, on behalf of the Swedish crystallographers, and by A. J. C. WILSON, on behalf of the Executive Committee of the Union. During the remainder of the day and the morning of Thursday 11 June, the Conference

on the Precision Lattice-Parameter Determination took place. The Conference on Counter Methods for Crystal-Structure Analysis was held on Thursday afternoon and during the whole day of Friday 12 June.

A list of the papers presented at the three Conferences is given at the end of this report. It is the intention that the papers read at the Conference on the Precision Lattice-Parameter Determination will be published in full in *Acta Crystallographica*, together with a report on the results of the relating project of the Commission. The papers presented at the Conference on Counter Methods for Crystal-Structure Analysis will appear in the *Review of Scientific Instruments*. No special arrangements have been made for the contributions given at the Conference on X-Ray Wavelength Problems.

The Commission itself held two private meetings in Stockholm during the period of the Conferences. All members except one were present. It was decided that for the time being the project on the precision determination of lattice parameters should not be continued because the results of the first phase needed further study. On the other hand, however, it was agreed that a new international cooperative project should be started on the precision of intensity measurements, and that the experimental comparison of the properties of commercially available X-ray films, which was carried out under the auspices of the Commission some years ago, should be repeated including some additional properties in the new investigation. Further topics discussed were the question of the publication of review articles on apparatus and techniques, the publication of the *Index of Crystallographic Supplies*, problems of standardization of X-ray diffraction equipment, and the needs for better directions for protection against radiation hazards.

In view of the special character of the Conferences the programme of social events was limited to a banquet at the Restaurant Solliden at Skansen on Friday 12 June, and excursions to the Skokloster at Uppsala Castle and to the Kemiska Institutionen of the University of Uppsala on Saturday 13 June. At the banquet W. PARRISH summarized the results of the meetings, and D. W. SMITS, on behalf of the Executive Committee, expressed the Union's thanks to the Swedish hosts and to all who had cooperated in the organization of the meetings. Speeches were also given by A. ENGSTRÖM and G. HÄGG, who thanked the Union for having held the Conferences in Stockholm and the visitors from abroad for coming to Sweden.

List of Contributions

Conference on X-Ray Wavelength Problems

- W. PARRISH (U.S.A.). Introductory remarks.
 J. A. BEARDEN (U.S.A.). Measurement of absolute wavelengths of X-ray spectra.
 A. E. SANDSTRÖM (Sweden). X-ray standard wavelengths and the definition of the X-unit.
 L. G. PARRATT (U.S.A.). Intensity distribution in X-ray lines.
 J. W. M. DUMOND (U.S.A.) (paper presented by J. E. MACK). A survey of our present sources of information on the conversion constant $A (= \lambda_g/\lambda_s)$.
 P. BERGVALL (Sweden). Precision measurements of K X-ray wavelengths in heavier elements.
 H. BARTH (G.F.R.). Untersuchung der Realstruktur von Analysator-Einkristallen.

- J. DRAHOKOUPIL* & A. FINGERLAND (Czechoslovakia). The use of Ge and Si monocrystals for precision measurements in X-ray spectroscopy.
 A. J. C. WILSON (U.K.). Some problems in the definition of wavelengths in X-ray crystallography.

Conference on Precision Lattice-Parameter Determination

- W. PARRISH (U.S.A.). The IUCr lattice-parameter project.
 M. E. STRUMANIS (U.S.A.). Error sources in the precision determination of lattice constants.
 H. WEYERER (G.F.R.). Fehlerdiskussion bei Gitterkonstantenbestimmungen.
 M. ČERNOHORSKÝ (Czechoslovakia). The ratio method for absolute measurements of lattice parameters with cylindrical cameras.
 M. WILKENS (G.F.R.). Zur Brechungskorrektur bei Gitterkonstantenmessungen an Pulverpräparaten.
 M. H. MUELLER,* L. HEATON & K. T. MILLER (U.S.A.). Determination of lattice parameters with the aid of a computer.
 K. E. BEU, F. J. MUSIL & D. R. WHITNEY (U.S.A.) (paper presented by T. C. FURNAS, Jr.). An X-ray diffraction film-technique for the accurate and precise measurement of lattice parameters.
 S. WEISSMAN (U.S.A.). Precision determination of lattice parameters of single crystals by the divergent-beam method.
 D. CARLSTRÖM (Sweden). The projection X-ray microscope for divergent-beam diffraction.
 H. BARTH (G.F.R.). Möglichkeiten einer Präzisionsmessung von Gitterkonstanten mit hochmonochromatisierter Röntgen-Strahlung.
 J. ČERMAK (Czechoslovakia) (paper presented by B. POST). The intensity distribution in the focus of curved-crystal monochromators and an estimate of its influence on the precision measurement of lattice parameters.
 P. M. DE WOLFF (Netherlands). Diffractometer measurement of low-order powder reflections.
 W. L. BOND (U.S.A.). Precision lattice-parameter determination from single crystals.
 B. M. ROVINSKII & E. P. KOSTINKOVA (U.S.S.R.) (paper presented by M. ČERNOHORSKÝ). Simple standardless method of precision lattice-parameter determination of polycrystalline substances.
 W. PARRISH (U.S.A.). The centroid method of precision lattice-parameter determination.
 A. S. NOWICK* & R. FEDER (U.S.A.). Use of precision relative lattice-parameter measurements in the study of defects in crystals and of order in alloys.
 K. MEYERHOFF (G.F.R.). Precision lattice-constant determination of $TiCl_3$ by electron diffraction.

Conference on Counter Methods for Crystal-Structure Analysis

- D. W. J. CRUICKSHANK (U.K.). The required precision of intensity measurements for single-crystal analysis.
 W. PARRISH (U.S.A.). X-ray counter technique.
 R. HOSEMANN* & G. SCHÖKNECHT (G.F.R.). Möglichkeiten für die Präzisionsstrukturanalyse mit Faltungsintegralen.

* Indicates speaker.

- B. POST (U.S.A.). X-ray diffraction measurements of thermal effects in crystals.
- E. R. WÖLFEL (G.F.R.). Problems in connection with absolute intensity measurements.
- R. PEPINSKY, K. DRENCK* & H. DIAMANT (U. S. A.). SCADAC, a single-crystal automatic diffractometer and analogue computer.
- W. A. WOOSTER (U. K.) (paper presented by A. M. WOOSTER). The Wooster automatic-setting X-ray diffractometer.
- G. A. JEFFREY (U.S.A.). Application of the General Electric Co. crystal orienter and counter diffractometer to crystal-structure analysis.
- E. H. PIGNATARO (U.S.A.) (paper presented by T. C. FURNAS, Jr.). Collection of three-dimensional diffraction data from single crystals of proteins using counter techniques.
- T. C. FURNAS, Jr. (U.S.A.). Direct versus crystal-monochromatized radiation for crystal-structure data.
- R. S. CALDER & J. B. FORSYTH (U.K.). Apparatus for use in the measurement of single-crystal X-ray diffraction intensities.
- U. W. ARNDT* & D. C. PHILLIPS (U.K.). A single crystal X-ray diffractometer.

* Indicates speaker.

Notes and News

Announcements and other items of crystallographic interest will be published under this heading at the discretion of the Editorial Board. Copy should be sent direct to the Editor (P. P. Ewald, Polytechnic Institute of Brooklyn, 333 Jay Street, Brooklyn 1, N. Y., U. S. A.) or to the Technical Editor (R. W. Asmussen, Chemical Laboratory B of the Technical University of Denmark, Sølvgade 83, Copenhagen K, Denmark)

A New Aid for the Rapid Determination of Absorption Corrections by Albrecht's Method

An error occurs in the above paper by Deane K. Smith (*Acta Cryst.* (1959), 12, 479). The first sentence in the first paragraph on page 480 should read, 'The scales are set with the aid of a drafting machine or other device that maintains a movable straight edge at a fixed orientation with the Bernal circles as shown in Fig. 2.'

Modern Methods of Crystal Structure Determination.

It is proposed to hold a summer school in *Modern Methods of Crystal Structure Determination* at the College of Science and Technology, Manchester 29th August—9th September, 1960 after the Cambridge Meeting of the International Union of Crystallography. The course will be suitable for those who already have some experience and who wish to extend their knowledge. Instruction will be partly in the form of lectures and partly in the form of practical work based on these lectures. The course will be under the general direction of Professor H. Lipson, F. R. S., and it is expected that

several lecturers of international repute will be able to give their services.

A detailed programme will be available after Christmas. Further information can be obtained from Professor H. Lipson, F. R. S., Manchester College of Science and Technology, Sackville Street, Manchester 1, England.

Binding of Acta Crystallographica.

Complaints have been received from subscribers in U.S.A. that in bound volumes of this journal the inner parts of the inner columns are sometimes not clearly legible, and an increase of the width of the margins has been suggested. Inspection of one such volume showed that the binder, instead of sewing or stitching the opened-up sheet in its crease, had stapled through the closed sheet at a distance of 2.5 to 3.5 millimeters from the crease. Through this procedure 5—7 millimeters of the total inner margin between adjacent pages is lost, and the pages belonging to the same sheet can not be opened out flat. Subscribers of *Acta Cryst.* would do well to insist that the binders use the proper professional way of stitching or stapling along the crease of the opened-up sheet.