

## References

- COCHRAN, W. (1951). *Acta Cryst.* **4**, 408.  
 FLEET, S. G. (1962). Thesis, Cambridge University.  
 FORSYTH, J. B. & WELLS, M. (1959). *Acta Cryst.* **12**, 412.  
 LIPSON, H. & COCHRAN, W. (1953). *The Determination of Crystal Structures*. London: Bell.  
 MCKIE, D. (1959). *Miner. Mag.* **32**, 282.  
 MEGAW, H. D. (1952). *Acta Cryst.* **5**, 477.  
 NARAY SZABO, ST., TAYLOR, W. H. & JACKSON, W. W. (1929). *Z. Kristallogr.* **7**, 117.  
 RAMACHANDRAN, G. N. & SRINIVASAN, R. (1959). *Acta Cryst.* **12**, 410.  
 ROBERTSON, J. M. (1943). *J. Sci. Instrum.* **20**, 175.  
 WELLS, M. (1961). Thesis, Cambridge University.

## 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 General Secretary of the International Union of Crystallography (D. W. Smits, Mathematisch Instituut, University of Groningen, Reithdriepskade 4, Groningen, The Netherlands).*

## International Union of Crystallography

## International Tables for X-ray Crystallography

Volume III of the *International Tables for X-ray Crystallography*, which completes the trilogy originally planned in 1946, has now been published at the price of £5. 15s. for the quarto-sized volume of xvi + 362 pages. As with the previous Volumes, working crystallographers may obtain a personal reduced-price copy; such orders must be made directly with the publishers. UNESCO coupons may be used where soft currency might cause difficulties of exchange. The low prices are only possible because the editors and authors have all given their time freely. What profits there are will go to the International Union of Crystallography and help to maintain its many activities; but about 2300 copies will have to be sold before the cost price of printing and publishing is recovered. There seems little doubt that this will happen within about 2 years. A total edition of 4000 has been

printed. Crystallographers may do a real service to the Union by sending reviews to Journals that might otherwise overlook this publication, as well as by making sure that the library of their institution or industry has an adequate number of copies. Order forms and copies of the Prospectus containing a brief list of contents and authors, may be obtained from the Kynoch Press, Birmingham 6, England.

Further *Errata Slips* for Volumes I and II of the *International Tables for X-ray Crystallography* are now ready and will be included in all copies of Volume III. Extra copies may be obtained on application to the publishers, the Kynoch Press.

Suggestions for corrections, for further Volumes or Supplements, should be sent to the Chairman of the Editorial Commission who, after July 1962, will be Prof. M. J. Buerger, M.I.T., Cambridge, Mass., U.S.A., or to the Editors most concerned.

*Acta Cryst.* (1962). **15**, 728

## International Union of Crystallography

## Report of Executive Committee for 1961

## Personal notes

The Executive Committee regrets to report that in 1961 the community of crystallographers lost three senior members: Professor William Thomas Astbury (4 June), Sir Kariamanikkam Srinivasan Krishnan (14 June) and Professor Carl Hermann (12 September); and it wishes to express its sympathy with the British, the Indian and the German crystallographers in their loss of these scientists. Professor Krishnan was a member of the Executive Committee during the triennium 1951-1954, and participated in this capacity in the work of the Union. The Union is also indebted to Professor Hermann, who was editor of the original *Internationale Tabellen zur Bestimmung von Kristallstrukturen*, the precursor of the present *International Tables for X-ray Crystallography*. Obituaries devoted to Professors Astbury, Krishnan and Hermann were published in *Nature* (1961), **191**, 331, 541; **192**, 604. Reference may also be made to an obituary published in *ICSU Review* (1961), **3**, 211, in which Professor Krishnan's role in various international organizations has been recalled.

On 18 December the 70th birthday of the Vice-President of the Union, Academician N. V. Belov, was officially celebrated at the Soviet Academy of Sciences; and he was awarded the order of Lenin.

## Meetings

By invitation of the Science Council of Japan, the Union participated, through its Commission on Electron Diffraction, in an International Symposium on Electron and Neutron Diffraction, which was held as Part II of an International Conference on Magnetism and Crystallography in Kyoto, Japan, from 25 to 30 September. During thirteen morning, afternoon and evening sessions 118 invited and contributed papers were read. Two of these sessions were actually joint sessions with Part I of the Conference, and devoted to neutron-diffraction studies of magnetic materials. The Conference was attended by about 600 Japanese and 225 foreign scientists; and the approximate ratio of those mainly interested in Parts I and II respectively amounted to 3 to 1.

Through its Commissions on Crystallographic Data, on *Acta Crystallographica* and on *Structure Reports*, the Union was represented at an International Conference on 'Scientific Information in the Fields of Crystallography and Solid-State Physics', which was held at the Kwansai Gakuin University at Nishinomiya on 3 and 4 October. This Conference was attended by about 60 scientists, and during three half-day sessions 19 papers were given.

The Executive Committee wishes to express, on behalf of the Union and of those who attended the above meetings, its sincere gratitude to the Japanese hosts for the excellent organization and the great hospitality received. Generous financial help received from UNESCO through ICSU, and from other sources, enabled a large number of the foreign scientists to attend, and is gratefully acknowledged. More detailed reports on both meetings, including lists of the papers presented, have been published earlier in this journal (see *Acta Cryst.* (1961), 15, 295, 299).

A business meeting of the Commission on Crystallographic Computing was held at Erbach, near Frankfurt, Germany, from 7 to 9 June. Further details about this meeting can be found in the report of this Commission given below.

During the year arrangements were made for the Commemoration Meeting 'Fifty Years of X-ray Diffraction', which will take place in Munich from 25 to 27 July 1962, and for the subsequent Symposium 'Recent Progress in the Experimental and Theoretical Methods of Crystal Structure Research', to be held from 28 to 31 July (see *Acta Cryst.* (1962), 15, 424). The local arrangements will be in the hands of a Local Committee under the chairmanship of Prof. F. Bopp; the Programme Committees for the two meetings are headed by Professors G. Menzer and W. Hoppe respectively.

### Appointments

The Executive Committee is glad to report that it found Dr W. H. Taylor, Cambridge, prepared to act as Chairman of the Programme Committee for the Sixth International Congress and subsequent Symposia, which will be held in Rome, Italy, in September 1963. At the proposal of Dr Taylor, the Executive Committee appointed Prof. P. Gallitelli, Prof. C. H. MacGillavry, Prof. A. Magnéli, Dr Harold G. Smith and Dr B. K. Vainshtein as members of this Programme Committee.

The Executive Committee further confirmed the appointment of four new Co-Editors for *Structure Reports*: Drs S. Geller, J. S. Kasper, A. McL. Mathieson and A. Taylor.

### Adhering Bodies; National Committees

The total number of Adhering Bodies remained unchanged since the Fifth General Assembly, and amounted to twenty-six at the end of 1961. They are listed in the Report of Executive Committee for 1960 (see *Acta Cryst.* (1961), 14, 798), along with the names and addresses of the secretaries of the National Committees. There have been the following secretarial changes:

*Israel*: R. HELLER, Department of Physics, Hebrew University, Jerusalem.

*U.S.A.*: D. P. SHOEMAKER, Chemistry Department, M.I.T., Cambridge 39, Mass.

*U.S.S.R.*: V. I. SOMONOV, Institute of Crystallography, Leninskii prospekt 59, Moscow B-333.

At the end of this Report all changes in the membership of National Committees which were brought to the notice of the General Secretary are listed.

### Work of the Commissions

#### *Commission on Acta Crystallographica*

Volume 14 for 1961 is the largest volume yet issued, with 1318 pages. It is fortunate that the number of subscribers continues to show a steady increase; the total distribution list has exceeded 2000 for the first time.

A survey of the contents of the last six volumes of *Acta Crystallographica* is given in Table 1. The increase in the size of the successive volumes is an indication of the healthy growth of the science of crystallography, but is beginning to raise financial problems. The Commission is anxious to avoid either an increase in the price of the volumes or an increased back-log of unpublished papers, and therefore requests all authors submitting papers and Short Communications to use the utmost brevity consistent with clarity of presentation.

#### *Commission on Structure Reports*

Volume 18 for 1954, edited by A. J. C. Wilson, was published before the end of the year. Volume 17 for 1953, which has suffered several delays, is with the printers; it is expected to appear in the fall of 1962. As a result of the appointment of four additional Co-Editors during the year, good progress was made with Volumes 19, 20 and 21. The manuscripts for Volumes 19 and 20 should be ready early in 1962. Work was started on Volume 22.

Prof. J. Wyart will complete his work as Co-Editor of the Inorganic Section with the publication of Volume 17, and the Commission and the Executive Committee take this opportunity of thanking him for the great services he has rendered in preparing this section of

Table 1. *Survey of the contents of Acta Crystallographica*

| Vol. | Year | Number of pages | Articles |                 |                | Short Communications |                 |                |
|------|------|-----------------|----------|-----------------|----------------|----------------------|-----------------|----------------|
|      |      |                 | Number   | Number of pages | Average length | Number               | Number of pages | Average length |
| 9    | 1956 | 1048            | 173      | 915             | 5.29           | 91                   | 87              | 0.96           |
| 10   | 1957 | 874             | 133      | 600             | 4.51           | 86                   | 91              | 1.06           |
| 11   | 1958 | 909             | 152      | 790             | 5.20           | 73                   | 82              | 1.12           |
| 12   | 1959 | 1067            | 181      | 926             | 5.12           | 93                   | 103             | 1.11           |
| 13*  | 1960 | 1164            | 144      | 835             | 5.79           | 69                   | 105             | 1.52           |
| 14   | 1961 | 1318            | 206      | 1111            | 5.40           | 166                  | 181             | 1.09           |

\* Volume 13 includes the report of the Cambridge Congress, involving 189 pages of abstracts

Volumes 14–17. The Commission also welcomes Drs S. Geller, J. S. Kasper, A. McL. Mathieson and A. Taylor who, during 1961, have accepted responsibilities as Co-Editors.

As in the previous year the Commission has been greatly concerned with the problem of reducing the time-lag in the production of *Structure Reports*, and also in the question of the extent of the subject matter which is to be reported.

#### *Commission on International Tables*

Up to the end of 1961 the total sales of Volume I were 2925 and of Volume II 2287. The lag in sales of Volume II may be partly due to the fact that very few reviews have yet appeared; even *Acta Crystallographica* has not yet published a review although it is over two years since the date of publication.

Volume III has gone to press and copies should be available by the end of June 1962, in time for the Munich Celebration and Symposium.

#### *Commission on Crystallographic Apparatus*

All business of the Commission was conducted by mail with the exception of a visit by the Chairman to Dr A. J. Rose in Paris to formulate plans for a new edition of the *Index of Crystallographic Supplies*.

1. *Precision Determination of Lattice Parameters*. Free distribution has continued of the set of reprints of papers presented at the Stockholm Conference (*Acta Cryst.* (1960), **13**, 813–850). Samples of silicon and tungsten powder used in the project also continue to be distributed free. Some additional reports were received from people who measured the lattice parameters of these samples after the project was completed. If enough new data are received by the end of 1962, a supplementary report will be prepared. Some thought has been given to the desirability of beginning the second phase of the project. The first phase was done mostly with film techniques. Few diffractometers were used, and the work might also include non-cubic substances. The problems of systematic errors and of the intensity distribution of the spectral profiles have not yet been solved.

2. *X-Ray Film Test*. This project under the direction of Prof. Ryozi Uyeda, Nagoya University, Japan, was begun in March 1961, and is scheduled to be completed in early 1962. The work includes the measurement of (a) film speeds for Cu  $K\alpha$  and Mo  $K\alpha$ , (b) homogeneity of films, (c) fog density, (d) Selwyn granularity, (e) absorption of X-rays of various wavelengths, (f) *D-E* characteristic curves for Cu  $K\alpha$  and Mo  $K\alpha$ , (g) fog increase due to ageing, and (h) sensitivity for safety lights of known spectral distribution.

3. *Index of Crystallographic Supplies*. Detailed plans were made for the preparation of a third edition to be published in time for the Rome Congress, September 1963. Dr Rose agreed to be editor and Mlle Genet his assistant. A list of possible national collaborators has been prepared; each collaborator will be responsible for collecting the information for his country. A group of specialist associate editors, not yet chosen, will compile and edit the data in a useful form. Collaboration with other Commissions of the Union is being arranged.

4. *Automatic Single-Crystal Diffractometers*. By the time of the Rome Congress more than four years will have passed since the Commission held a meeting on this subject at Stockholm (*Acta Cryst.* (1959), **12**, 1054).

It was decided that sufficient progress will have been made to hold two open meetings of the Commission devoted to instruments for X-rays and neutrons. A convener has been selected and a programme with invited and contributed papers will be arranged.

5. *Exhibit of Non-commercial Crystallographic Apparatus*. Plans are being formulated for an exhibit at the Rome Congress.

6. *Other Projects*. There were some discussions on the radiation protection and intensity measurements projects. The desire to publish review articles in *Acta Crystallographica* was confirmed and Dr W. Parrish will solicit papers. Dr Yoshihiko Saito of Tokyo University was elected as a consultant to the Commission.

#### *Commission on Crystallographic Data*

During 1961 the Commission endeavoured to implement the plan discussed during the meetings held in Cambridge in 1960 to improve co-ordination between the various organizations concerned with crystallographic data. At present there are six major organizations each searching, independently, the same abstracting journals and original publications. To reduce this duplication an arrangement was made with the Centre de Documentation of the C.N.R.S. in Paris whereby in future microfilms of papers containing crystallographic data will automatically be sent by the Centre to the Crystal Data Office in London, for use in connection with the Single Crystal File and for distribution to other organizations. The abstractors working for the Centre were specially alerted to look for and indicate crystallographic data in their abstracts. The distribution of data from London is now being organized and some help has already been given to *Structure Reports* and the Powder Data File.

During the year the U.S.S.R. and Japanese National Data Committees have given substantial help in compilation of single-crystal data from journals published in these countries. These abstracts are compared with abstracts published in the *Bulletin Signalétique* of the C.N.R.S. and it is hoped in this way to extend the coverage of journals by the Centre de Documentation. The British National Data Committee was reorganized as the Data Sub-Committee of the British National Committee for Crystallography. A circular letter was sent by Dr Vacicgo to all Italian crystallographers asking them to collaborate with the Commission and in particular to supply reprints of papers published in Italy. It is hoped that during 1962 further National Data Committees will be set up to help in extending the abstracting services.

#### *Commission on Crystallographic Nomenclature*

No meetings of the Commission have been held during 1961, but an active correspondence has been carried on. The main subjects of discussion have been the numbering of atoms, the nomenclature of structure types, and the use of the words isomorphous, isostructural and isotopic. A recommendation regarding the numbering of atoms will be made to the Executive Committee of the Union when it meets in Munich in July 1962.

#### *Commission on Crystallographic Teaching*

Considerable progress can be reported for 1961 on the three continuing projects of the Commission: the syllabus file, the book list, and the list of Films and Teaching Aids.

As a result of the notices sent to *Acta Crystallographica*

(see *Acta Cryst.* (1961), **14**, 441), *X-RAG* and *ACA Bulletins* in January, seven new syllabuses, mostly from the U.S.A. and U.K., were received during the year, bringing the total in the file to 16. In the course of 1961 there were 16 requests for a total of 70 copies of syllabuses, coming from 10 different countries. Dr S. Furberg has borne the responsibility of this effort, and the expenses have been covered by his Institute.

The book list is being revised under the direction of Dr H. D. Megaw; and it will contain about 400–500 entries. The Commission, in cooperation with the Commission on Crystallographic Apparatus, is undertaking to revise the section on books and textbooks for the third edition of the *Index of Crystallographic Supplies*. The revised book list will meanwhile be available in mimeographed form as an *interim* measure.

The list of Films and Teaching Aids is also about to undergo a revision. It is hoped to include countries that hitherto have not been included in the list.

Early in 1961 the Commission completed its study of the proposed monograph of symmetry drawings by M. C. Escher, and reported to the Executive Committee.

#### *Commission on Electron Diffraction*

No report has been received from this Commission.

#### *Commission on Crystallographic Computing*

In June 1961 the Commission held a meeting at Erbach, near Frankfurt, which was attended by 14 persons, members and consultants of the Commission and invited guests. Thanks are due to Dr T. Hahn and Prof. H. O'Daniel for the excellent local arrangements.

Detailed plans were made for the data collection and publication of a *World List of Crystallographic Computing Programs*. Prof. D. Shoemaker was appointed General Editor, and regional and machine correspondents were appointed as listed in the note published in *Acta Cryst.* (1961), **14**, 898, which contains further details concerning this project.

As a guide pertaining to the standards for reporting computational procedures and the results thereof in crystal-structure analyses, a set of recommendations was discussed at the meeting and agreed upon by subsequent correspondence. These recommendations, and a second set of recommendations with respect to the next item reported below, were sent, with the approval of the Executive Committee, to the Editors of those journals in which crystallographic papers are normally published. They have been printed in full in *Acta Cryst.* (1962), **15**, 515.

The publication of descriptions of computing methods and crystallographic computing programs was also discussed at the meeting and by correspondence. The opinion was held that to a significant extent the exchange of ideas on computational procedures and techniques was impaired in the past by the absence of a consistent policy in regard to the publication of this material in crystallographic journals. The Commission feels in favour of encouraging increased publication in the journals in which crystallographers usually publish.

The plans for a symposium on crystallographic computing were discussed and a request that such a symposium be included in the programme of the Rome Congress in 1963 was sent to the Chairman of the Programme Committee of that Congress.

A suggestion that the Commission organize a computing

service for crystallographers without access to computing equipment was considered. It was agreed that at present such a service was best arranged on a personal basis, and that the need for such a facility would probably diminish as computers continued to become more widely available.

The need for some standard crystal-data to be used for checking program accuracy, and for an introductory text on crystallographic computing procedures was discussed. Individual members of the meeting were encouraged to take the initiative in providing these materials.

In regard to the development of computer-controlled instrumentation, it was agreed that while the programming of such instruments lay within the interests of this Commission, the equipment and control mechanisms were more properly the concern of the Commission on Crystallographic Apparatus. A request from the latter Commission to cooperate on a section dealing with auxiliary computing apparatus, for the third edition of the *Index of Crystallographic Supplies*, is being considered by the Commission.

In 1961 the following consultants and regional correspondents accepted invitations to assist the Commission in its programme: S. Åsbrink, L. Cavalca, F. Hirshfeld, A. Linek, C. Panattoni, I. M. Rumanova and Y. Takéuchi (*cf.* previous report).

#### *Abstracting Board of the International Council of Scientific Unions*

The Executive Committee of the ICSU Abstracting Board met at the Institution of Electrical Engineers, London, on 13 and 14 July. The meetings were attended by A. J. C. Wilson, the alternate observer appointed by the Union. The main point of interest to the Union was a report by Prof. G. A. Boutry on the control, financing, size, cost and circulation of about 160 journals publishing original papers in the fields of mathematics, physics, chemistry, biology and medicine. It is gratifying to know that this report will be published *in extenso*, though details of the mode of publication are not yet available. It would appear that *Acta Crystallographica*, without the help of page charges or subsidies, is doing rather well in maintaining a low price to readers for each unit of 10,000 words of scientific matter.

#### *Commission on Macromolecules of the International Union of Pure and Applied Chemistry*

No report has been received from the Representative of the Union on this Commission.

#### *Commission on Solid-State Physics of the International Union of Pure and Applied Physics*

The General Assembly of IUPAP renewed the membership of the Commission in 1960. It consists now of the following persons: P. Aigrain (France) as Chairman, G. W. Rathenau (Netherlands) as Secretary, F. C. Frank (U.K.), F. Seitz (U.S.A.), S. N. Zhurkov (U.S.S.R.) as members appointed by IUPAP, F. H. Laves (Switzerland) and P.-O. Löwdin (Sweden) as members appointed by IUCr.

No meeting of the Commission was held in 1961 but it is planned to meet in Europe, probably at the end of 1962. It was agreed by correspondence (*a*) rather to sponsor small meetings on limited subjects each year than to have larger meetings; and (*b*) to recommend that IUPAP support an International Conference on Crystal Lattice Defects, to be held in Kyoto, Japan, 7–12 Sep-

tember 1962, and to be organized by Professors F. Fujiwara and R. R. Hasiguti [IUPAP followed this recommendation]. As to (a), the Commission's secretary would be pleased to receive suggestions from crystallographers interested in suitable topics.

### International Council of Scientific Unions

The Union was represented by its Vice-President, Dame Kathleen Lonsdale, at the 13th meeting of the Executive Board and the Ninth General Assembly of ICSU. At the invitation of the Royal Society, these meetings were held in London from 14 to 28 September.

One of the most important items of discussion was the future structure of ICSU, its organization and its financing. It was felt that as international scientific activity is so rapidly expanding in scope and complexity, and placing ever greater demands on ICSU and the Unions, that the structure and financing of ICSU needed to be changed to scope with these demands. A special committee was appointed to design a new structure and to prepare a draft of new Statutes.

In addition to six new National Members, the newly formed International Union of Geological Sciences was admitted as a Scientific Member. Much time was devoted to formal reports from the Unions, and from the Special Committees and other organizations of ICSU; to scientific programmes of no direct interest to IUCr; and to the consideration of various budgets. The General Assembly decided that the ICSU Secretariat be transferred from The Hague to Rome where it would be located geographically more favourably. New Officers were elected; the newly elected President and General Secretary are respectively Dr E. W. R. Steacie (Canada) and Prof. J. Van Mieghem (Belgium).

A more detailed report of the proceedings of the General Assembly has been published in *ICSU Review* (1962), 4, 19. On 26 September SIR LAWRENCE BRAGG delivered a special discourse entitled 'The Analysis of Protein Molecules by X-Rays', to the delegates attending the ICSU General Assembly. This lecture has been published in *ICSU Review* (1962), 4, 33.

### Finances

The audited accounts of the Union for the year 1961 are published at the end of this Report. As usual the amounts are expressed in Netherlands Guilders, and the following rates of exchange were used: £1=\$2.80; \$1=f.3.62=N.F. 4.90=Sw. Cr. 5.17=D. Cr. 6.90. According to a statement received from ICSU, these rates are the standard rates of exchange used by the U.N. organizations at 1 January 1962. The main difference between these rates and those used in previous accounts of the Union is an about 4.8 per cent higher value for the Netherlands Guilder, in consequence of its revaluation in March 1961.

The *Acta Crystallographica* account for 1961 is the first one since 1953 showing a deficit. Although this deficit is relatively small, namely f.2936, which is about 1.6 per cent of the total expenditure in 1961, the difference between the accounts for 1960 and 1961 is more serious; in the former year income exceeded expenditure by f.37,048.

A comparison of the two accounts shows that a large increase in the publication expenses was the main cause for the recession. The higher publication expenses were

caused by the increase in the size of the annual volume from 1164 pages in 1960 to 1318 pages on 1961, by the fact that the cost of production of the December 1960 issue was relatively low, and by two increases in the printing rates in 1961. A further comparison of the two accounts shows that also the editorial expenditure was higher in 1961 than in 1960. It should be kept in mind that the differences between the expenses are actually almost 5 per cent larger than as shown in Guilders because practically all payments were made in other currencies.

At the income side it appears that expressed in Guilders the subscriptions yielded about the same amount in 1961 as in 1960; actually the income from subscriptions was about 5 per cent higher and this can be seen directly if the amounts in Danish Crowns are compared. The income from the sale of back numbers, however, shows a decrease, and the same applies to the income from advertisements.

Fortunately the accumulated balance of the *Acta Crystallographica* account, which decreased to f.178,022 at the end of 1961, still forms a safe reserve. For the coming years larger deficits may be expected because it is likely that the continuing increase in the cost of production will exceed the also continuing increase in the income from subscriptions. This will undoubtedly make it necessary to increase the subscription prices in the near future unless by other measures the cost of production could be reduced.

The *Structure Reports* account for 1961 also shows a deficit which amounted to f.19,906. In examining this account, it appears that the cost of printing and binding of Vol. 18 was completely charged to this account, but that no income from sales of copies of this volume was received in 1961; the volume appeared at the end of the year. As already remarked in earlier reports, the annual *Structure Reports* accounts do not give a correct picture of the situation because unsold copies have never been credited to the accounts. If for each individual volume the total expenditure and income is examined, the financial situation appears to be satisfactory. The cost of production of most volumes has already been completely recovered from the income from sales of copies of these volumes. These sales are still continuing at a reasonable level so that a reserve is built up against unexpected factors, and for expenses which cannot be charged against any particular volumes. The accumulated balance in the *Structure Reports* account, which amounted to f.63,984 at the end of 1961, is also sufficient to allow the intended acceleration in the production of new volumes which will involve an increased initial expenditure.

The *International Tables* account for 1961 shows that in that year income exceeded expenditure by f.20,385. The income from sales of copies of Volume II continued at such a level that the total cost of production of this volume was already fully recovered by the end of 1961, thus within two years after the appearance of the book. It is satisfactory to note that also Volume I has continued to sell at quite a high level. It is surprising that in 1961 the income from sales of copies of this volume, which appeared in 1953, amounted to about 75 per cent of the income from sales of copies of Volume II. Apparently the stimulation which the appearance of Volume II gave to the selling of Volume I has continued in 1961. At the end of that year the accumulated balance of the *International Tables* account had increased to f.111,403.

In 1961 no changes occurred in the General Publication Fund, except that in consequence of the revaluation of the Netherlands Guilder, the accumulated balance of this Fund changed to *f.* 84,562.

The General Fund account for 1961 shows a balance of *f.* 20,325. A total sum of *f.* 29,356 was spent in connection with the Symposium on Electron and Neutron Diffraction in Kyoto, Japan; the larger part of this expenditure was, however, recovered from the subvention received from UNESCO through ICSU which amounted to *f.* 25,340. This subvention was partly also used for a contribution to the cost of a meeting of the Commission on Crystallographic Computing, for which a total sum of *f.* 3209 was needed, and to defray part of the expenses for the second film-comparison project of the Commission on Crystallographic Apparatus. The total expenditure of the non-publishing Commissions amounted to *f.* 2456 in 1961 (*f.* 1910 in 1960 and *f.* 3582 in 1959).

The administrative expenditure was in 1961 about the same as in 1960, and amounted to *f.* 10,200. Also the income from the annual subscriptions from the Adhering Bodies remained about equal and yielded *f.* 26,004 in 1961. An increased income was obtained from investments and interest on banking and deposit accounts; the total sum received in 1961 from these sources amounted to *f.* 14,653, to be compared with *f.* 10,176 in 1960. The sales of copies of the *World Directory of Crystallographers* and of the Teaching Pamphlet yielded *f.* 832 and *f.* 741 respectively.

The effect which the revaluation of the Netherlands Guilder had on the financial state of affairs of the Union is shown in the Balance Sheet. This effect was calculated on the basis of the Balance Sheet as at 31 December 1960 by rescaling all non-Guilder amounts with the new rates of exchange. Expressed in Guilders the revaluation of this currency meant a loss to the Union amounting to *f.* 14,032, which is about 2.6 per cent of the total assets of the Union as at the end of 1960. This loss was divided among the various accounts, and the balances in these accounts were used as the main basis for this division. It should be kept in mind that the effect of the revaluation of the Guilder would have appeared as a profit of about 2.2 per cent if the Union accounts had been expressed in another currency, e.g. in U.S. dollars. At the end of 1960 about 45.7 per cent of the total assets of the Union were actually Guilder assets.

A comparison of the Balance Sheet with the previous one shows that in 1961 the holding of investments was enlarged by the purchase of nominal £ 3703 3¼% Australia 1965/69, *f.* 36,000 3% Nederland 1937 and \$ 28,000 3% Nederland 1947, whereas nominal *f.* 7,000 3% Nederlandsch Indië 1937 were redeemed in that year. As the new investments had all been purchased below par, the policy of including the investments at par in the Balance Sheet was discontinued because otherwise a non-existing profit would have appeared in the accounts. All investments have therefore been valued according to their quotation as at 31 December 1961, and an amount of *f.* 5990 representing the depreciation in the value of the investments is a new item on the Balance Sheet.

The larger part of the balances with the various banks are placed on deposit accounts, namely, at the end of 1961, *f.* 46,000 with the Amsterdamsche Bank N.V., \$ 21,768 with the First National City Bank of New York, Sw.Cr. 104,342 with the A.B. Svenska Handelsbanken, and £ 2114 with the Westminster Bank Ltd. The amounts

due from two publishers represent the balances of the accounts with these firms as at the end of 1961; the sums have been received meanwhile.

As usual the stocks of unsold copies of *Acta Crystallographica*, *Structure Reports* and *International Tables* are again mentioned *pro memoria* on the Balance Sheet. In earlier reports it has already been explained that these stocks represent a considerable and increasing asset which is continuously being converted into cash.

### Membership of Committees, Commissions and other bodies

The membership of the bodies belonging to the Union, and the names of the representatives on bodies not belonging to the Union, were published earlier in this journal (see *Acta Cryst.* (1960), **13**, 968; (1961), **14**, 803), except for the following additions:

#### *Commission on Structure Reports*

*Add as Co-Editors:* J. S. KASPER (U.S.A.)  
A. MCL. MATHIESON (Australia)  
A. TAYLOR (U.S.A.)

#### *Commission on Crystallographic Apparatus*

*Add as Consultant:* Y. SAITO (Japan)

#### *Commission on Electron Diffraction*

*Add as Consultants:* S. GOLDSZTAUB (France)  
R. D. HEIDENREICH (U.S.A.)  
Y. MORINO (Japan)  
B. K. VAINSHTEIN (U.S.S.R.)

### Membership of National Committees

Since the latest publication of the membership lists of the National Committees (see *Acta Cryst.* (1960), **13**, 570; (1961), **14**, 803), the following changes have been reported:

#### *Argentina*

*Delete:* J. A. McMILLAN, R. J. POLJAK, W. C. STOLL.

#### *Austria*

*Add:* E. H. K. SCHMID.

#### *France*

*Add:* M. HUBER, R. KERN, Y. LE CORRE.  
*New Officers:* J. MÉRING (Chairman), J. FRIEDEL and V. LUZZATI (Vice-Chairmen).

#### *Japan*

T. FUJIWARA (Chairman), G. HONJO, S. HOSHINO, T. ITO, J. KAKINOKI, N. KATO, R. KIRIYAMA, K. KOHRA, S. MIYAKE, Y. MORINO, I. NITTA, S. OGAWA, R. SADANAGA, Y. SAITO, E. SUTO, Y. TAKÉUCHI, R. UYEDA, T. WATANABÉ.

#### *Netherlands*

E. H. WIEBENGA (Chairman), J. M. BIJVOET, P. B. BRAUN, W. G. BURGERS, J. A. GOEDKOOP, E. HAVINGA, J. J. DE LANGE, C. H. MACGILLAVRY, A. F. PEERDEMAN, W. G. PERDOK, J. A. PRINS, G. D. RIECK, D. W. SMITS, P. M. DE WOLFF.

#### *U. K.*

*Add:* W. H. TAYLOR.

*Acta Cryst.* (1962). 15, 734

## International Union of Crystallography

### *Acta Crystallographica* Account for the year ended 31 December 1961

|  | <i>Netherlands Guilders</i> | <i>Netherlands Guilders</i>                                |
|--|-----------------------------|--|
| Publication Expenses:                              |                             |  |
| Printing and Binding, Vol. 14, 1961                | (D. Cr. 253,187.42)         | 132,831.66   |
| Distribution and Postage                           | (D. Cr. 28,065.92)          | 14,724.44  |
|  |                             | <u>147,556.10</u>  |
| Editorial Expenses:                                |                             |  |
| Editorial Honoraria and Secretarial Assistance     | 25,489.81                   |  |
| Office Rent, Postages, Telephone, Office Supplies, |                             |  |
| Stationery and Sundries                            | 3,207.57                    |  |
| Travelling Expenses                                | 1,272.34                    |  |
| Depreciation of Office Equipment                   | 190.00                      |  |
|  |                             | <u>30,159.72</u>   |
| Cost of Advertisements                             | (D. Cr. 2,777.69)           | 1,457.28   |
|  |                             | <u>f. 179,173.10</u>                                       |
|  |                             | <u>170,979.14</u>  |
|  |                             | Subscriptions to Vol. 14, 1961                             |
|  |                             | (D. Cr. 296,331.88)  |
|  |                             | 155,466.87   |
|  |                             | Sale of Single Copies                                      |
|  |                             | (D. Cr. 364.00)  |
|  |                             | 190.97   |
|  |                             | Sale of Back Numbers                                       |
|  |                             | (D. Cr. 75,760.65)   |
|  |                             | 39,746.89  |
|  |                             | 185,404.73   |
|  |                             | Less Publishers' Commission on Sales                       |
|  |                             | (D. Cr. 46,557.07)   |
|  |                             | 24,425.59  |
|  |                             | 6,220.28   |
|  |                             | Income from Advertisements                                 |
|  |                             | Less Advertising Agent's Commission                        |
|  |                             | 962.38   |
|  |                             | 5,257.90   |
|  |                             | Excess of Expenditure over Income carried to Balance Sheet |
|  |                             | 2,836.06   |
|  |                             | <u>f. 179,173.10</u>                                       |

### *Structure Reports* Account for the year ended 31 December 1961

|  |           |                  |  |
|--|-----------|------------------|--|
| Publication Expenses:                                      |           |                  |  |
| Printing and Binding, Volume 18                            | 32,647.38 |                  | 3,169.00   |
|  |           |                  | 2,610.00   |
|  |           |                  | 2,009.50   |
| Editorial Expenses:  |           |                  |  |
| Editorial Honoraria, Abstractors' and Assistants' Salaries | 15,225.98 |                  | 3,405.00   |
| Stationery, Postages and Sundries                          | 619.26    |                  | 2,553.00   |
|  |           | <u>15,845.24</u> | 3,705.00   |
|  |           |                  | 2,407.50   |
|  |           |                  | 5,102.50   |
|  |           |                  | <u>11,275.00</u>   |
|  |           |                  | 36,236.50  |
|  |           |                  | 7,650.25   |
|  |           |                  | 28,586.25  |
|  |           |                  | Excess of Expenditure over Income carried to Balance Sheet |
|  |           |                  | 19,906.37  |
|  |           |                  | <u>f. 48,492.62</u>  |





## Balance Sheet as at 31 December 1961

| <i>Liabilities</i>                               |            | <i>Assets</i>   |
|--|------------|---|
| <b>Sundry Creditors:</b>                         |            | <b>Cash at Bank:</b>  |
| N. V. A. Oosthoek's Uitgevers Mij, Utrecht       | 5,049-55   | Amsterdamsche Bank N.V., Groningen, Guilders account,   |
| Administrative Expenses                          | 858-50     | incl. interest on account due for 1961  |
| <i>Acta Crystallographica</i> Editorial Expenses | 374-57     | Amsterdamsche Bank N.V., Groningen, Dollar account  |
| <i>Structure Reports</i> Editorial Expenses      | 822-61     | (£ 754-22)  |
| Travelling Expenses                              | 404-86     | Comptoir National d'Escompte de Paris (N.F. 2,098-82)   |
|  |            | First National City Bank of New York (\$ 25,153-17)   |
|  |            | A.B. Svenska Handelsbanken, Stockholm   |
| <i>Acta Crystallographica</i> Account:           | 7,510-09   | (Sw. Cr. 104,342-39)  |
| Balance as at 1 January 1961                     | 186,778-93 | (£ 2,361. 16. 5)  |
| Less Difference on Revaluation                   | 5,820-67   | Westminster Bank Ltd, Cambridge   |
| Excess of Expenditure over Income                | 2,936-06   | _____ 240,468-27  |
| for the year to date                             |            |   |
|  |            | <b>Cash with Editors and Commissions:</b>   |
| <b><i>Structure Reports</i> Account:</b>         |            | Editor of <i>Acta Crystallographica</i> (£ 439. 4. 4)   |
| Balance as at 1 January 1961                     | 8,756-73   | Technical Editor of <i>Acta Crystallographica</i> (D. Cr. 5,485-39)   |
| Less Difference on Revaluation                   | 85,737-44  | Editor of <i>International Tables</i> (£ 33. 19. 1)   |
| Excess of Expenditure over Income                | 1,846-97   | Commission on Crystallographic Apparatus (£ 195-89)   |
| for the year to date                             | 19,906-37  | Commission on Crystallographic Data (£ 8. 12. 9)  |
|  |            | Programme Committee for Rome Congress (£ 100. 0. 0)   |
|  |            | _____ 9,484-17  |
| <b><i>International Tables</i> Account:</b>      |            | <b>Due from:</b>  |
| Balance as at 1 January 1961                     | 21,753-34  | Messrs Munksgaard, Copenhagen (D. Cr. 41,630-05)  |
| Less Difference on Revaluation                   | 63,984-10  | The Kynoch Press Ltd, Birmingham (£ 1,041.15.8)   |
|  |            | _____ 32,400-21   |
|  |            | Advertisements in <i>Acta Crystallographica</i> , due for 1961, after   |
| <b>Add Excess of Income over Expenditure</b>     |            | deduction of Advertising Agent's Commission   |
| for the year to date                             | 20,385-12  |   |
|  |            | <b>Investments (Market values as at 31 December 1961):</b>  |
| <b>General Publications Fund:</b>                |            | £ 3,702.19.3 3¼% Australia 1965/69 79½ 30,002-56  |
| Balance as at 1 January 1961                     | 111,403-07 | £ 3,000 4½% Conversion Stock 1962 99½ 30,357-32   |
| Less Difference on Revaluation                   | 86,485-99  | f. 36,000 3% Nederland 1937 92 33,120-00  |
|  | 1,924-36   | f. 28,000 3% Nederland 1947 89 90,210-40  |
|  |            | f. 59,000 3% Nederlandsch Indië 1937 <sup>1</sup> 99 58,410-00  |
| <b>General Fund:</b>                             |            | f. 6,000 4½% Noorwegen 1955 96 5,760-00   |
| Balance as at 1 January 1961                     | 83,649-21  | f. 6,000 4% Unie van Zuid Afrika 1955 74 4,440-00   |
| Less Difference on Revaluation                   | 1,809-05   |   |
|  | 81,840-16  | <b>Add Interest accrued thereon</b>   |
|  |            | _____ 252,300-28*   |
| <b>Add Excess of Income over Expenditure</b>     |            | _____ 255,281-08  |
| for the year to date                             | 20,325-33  |   |
|  |            | <b>Add Depreciation in value of Investments,</b>  |
|  |            | entered as an asset   |
|  |            | _____ 5,989-97*   |
|  |            | _____ 261,271-05  |
|  |            | _____ 1,700-00  |
|  |            | <b>Office Equipment</b>   |
|  |            | _____ 102,165-49  |
|  |            | <b>Stocks of unsold Copies of <i>Acta Crystallographica</i>, <i>Structure Reports</i> and <i>International Tables</i></b> |
|  |            | _____ <u>pro memoria</u>  |
|  |            | _____ <u>f. 547,646-58</u>  |

Rates of Exchange: £1 = \$2-80; \$1 = f. 3-62 = N. F. 4-90 = D. Cr. 6-90 = Sw. Cr. 5-17 (ICSU rates)

\* Since in 1961 new securities had been purchased below par, the policy of including the investments at par in the Balance Sheet has been discontinued. To prevent fluctuations in their values from influencing the General Fund account, the depreciation in value of the investments has been included in the Balance Sheet only.

We declare that the above Balance Sheet as at 31 December 1961, and the attached *Acta Crystallographica* Account, *Structure Reports* Account, *International Tables* Account and General Fund Account, exhibit a true and correct view of the affairs of the International Union of Crystallography.

Groningen, Netherlands, Ubbo Emmiuslingel 75.

7 June 1962

Signed: VAN DIEN, VAN UDEN & Co.

Accountants