

International Union of Crystallography

Report of Executive Committee for 1952

Introduction

The principal activities of the Union in 1952 have been in the field of publication: the first volume of *International Tables for X-ray Crystallography* and the second volume of *Structure Reports* appeared during the year and *Acta Crystallographica* was greatly expanded in size.

One further country (Austria) adhered in 1952. Details of the nineteen countries adhering at the end of the year are given in Table 1.

Work of the Commissions

Commission on Acta Crystallographica

The year 1952 was the first year of publication by Messrs Ejnar Munksgaard. The transfer to the new publishers made it possible to handle a considerably greater amount of material and to publish more rapidly, with the result that the 1952 volume with 869 pages was 50% larger than that for the preceding year (see Table 2).

The continuing expansion of the journal, while reflecting the rapid growth of crystallographic research throughout the world, has been a source of considerable concern to the Executive Committee and Vol. 5 was published at a heavy loss. It is unfortunately clear that a substantial increase in subscription price will soon be unavoidable.

Commission on Structure Reports

Structure Reports for 1949 (Vol. 12), the second volume to appear, was published in September 1952. Vol. 10 for 1945–1946 is in the press and should be published in the autumn of 1953. The typescript of Vol. 13 (for 1950) is being prepared for press, and the section editors are at work on Vol. 9 (for 1942–1944).

After Vol. 9 it is planned to publish Vol. 14 (for 1951) and Vol. 8 (for 1940–1941); the latter will complete the work of filling the gap due to the war of 1939–1945.

Commission on International Tables for X-ray Crystallography

Vol. 1 (Symmetry Groups) was published in October 1952. The Union is greatly indebted to the Kynoch Press for their high standard of typography and for the general care taken over the production of this volume; and also to UNESCO and to the U.S. National Research Council (National Committee for Crystallography) for financial assistance in connexion with the production and publication of the work. The number of copies printed was 4000, of which 1000 were bound, and sales in the short period before the end of the year were satisfactory. The sales of 5000 offprints of selected portions for teaching purposes were also encouraging and the cost of printing these has already been recovered. Editorial preparation of Vol. 2 (Mathematical Tables) and Vol. 3 (Physical and Crystallographic Tables) is in hand.

Commission on Crystallographic Apparatus

A meeting of the Commission was held in Paris in August 1952 and a programme of further activities was formulated. These include the establishment of a central information bureau, for which generous support had been provided by UNESCO, the publication of survey articles on crystallographic apparatus, the provision of crystallographic charts and the initiation of an experimental investigation into the properties of photographic materials used in crystallographic research. Towards the end of the year the Executive Committee learnt with deep regret of the illness of the Chairman of the Commission, A. Guinier, as a result of which the work of the Commission has unavoidably been somewhat retarded.

Commission on Crystallographic Data

Seven member countries of the Union have formed National Data Committees which are intended to act as sponsors for gathering crystallographic data within their boundaries. Of these the British National Data Committee has been the most active. A report of their work, together with news and general information on the status of publications of crystallographic data, was sent to the secretaries of the National Data Committees. Canada has set up a National Committee and has organized a programme of work on the recording of data of crystalline organic derivatives useful for identification.

Several new publications have appeared or will appear shortly. The *X-ray Diffraction Data Index* published by the American Society for Testing Materials has issued a fourth supplement listing 600 substances. A fifth supplement is in press, and this will include an amalgamated index for the first five sets. The appointment of three technical editors has been approved by this committee. This should speed the work of critical editing now in progress.

Prof. J. D. H. Donnay has completed a crystallographic index based on unit-cell dimensions. This will be published by the Geological Society of America. Dr L. K. Frevel has completed the tabulation of substances crystallizing in the hexagonal system according to structural type. This will extend the previous lists covering the cubic and tetragonal systems which appeared in *Analytical Chemistry*. It is planned to make available a single publication covering the three systems.

An annotated list of sources of crystallographic data has been prepared by Dr E. A. Wood. This will be published by the American Crystallographic Association and will be available for distribution outside the United States through the Chairman of the Data Commission. Further information concerning this list will appear in *Acta Crystallographica*.

Commission on Crystallographic Nomenclature

The Commission has discussed by correspondence a number of points of nomenclature which will be raised for consideration at the Third General Assembly in 1954.

Table 1. *Adhering Bodies*

Country	Group*	Secretary of National Committee
Australia	I	R. I. GARROD, Defence Research Laboratories, Private Bag No. 4, P.O. Ascot Vale W. 2, Victoria
Austria	I	F. MACHATSCHKI, Mineralogisches Institut der Universität, Vienna
Belgium	III	R. VAN TASSEL, Institut royal des Sciences Naturelles de Belgique, Rue Vautier 31, Brussels
Brazil	I	E. TAVORA, Faculdade Nacional de Filosofia, Av. Pres. Antonio Carlos 40, Rio de Janeiro, D.F.
Canada	IV	W. H. BARNES, Division of Physics, National Research Council, Ottawa
Czechoslovakia	I	The Secretary, Czechoslovak National Research Council, Opletalova 19, Prague 2
Denmark	I	A. TOVBORG JENSEN, Den Kgl. Veterinær- og Landbohøjskoles kemiske Laboratorium, Copenhagen V
France	VII	V. LUZZATI, Laboratoire Central des Services Chimiques de l'État, 12 quai Henri IV, Paris 4
India	I	The Secretary to the Government of India, Department of Scientific Research, North Block, Central Secretariat, New Delhi
Italy	III	G. GIACOMELLO, The University, Rome
Japan	IV	T. ITO, National Committee for Crystallography, Science Council of Japan, Ueno Park, Tokyo
Netherlands	IV	E. H. WIEBENGA, Bloemsingel 10, Groningen
Norway	I	I. OFTEDAL, Mineralogisk Institutt, Blindern, Oslo
South Africa	I	The Officer-in-Charge, Liaison Division, South African Council for Scientific and Industrial Research, P.O. Box 395, Pretoria
Spain	IV	M. ABBAD, Instituto 'Alonso de Santa Cruz', Serrano 119, Madrid
Sweden	I	F. E. WICKMAN, Stockholm 50
Switzerland	I	W. NOWACKI, Mineralogisches Institut der Universität, Bern
United Kingdom	VIII	The Secretary of the British National Committee for Crystallography, The Royal Society, Burlington House, London W. 1
United States of America	VIII	E. A. WOOD, Bell Telephone Research Laboratory, Murray Hill, N. J., U. S. A.

* See Statutes 8 and 10 (*Acta Cryst.* (1948), **1**, 275).

Table 2. *Analysis of Volumes 1-5 of Acta Crystallographica*

	Vol. 1, 1948	Vol. 2, 1949	Vol. 3, 1950	Vol. 4, 1951	Vol. 5, 1952
No. of pages	348	425	490	583	869
No. of articles in English	55	68	65	88	135
No. of articles in French	4	4	3	8	11
No. of articles in German	2	8	4	2	4
Total no. of articles	61	80	72	98	150
No. of Short Communications in English	13	20	41	58	62
No. of Short Communications in French	1	—	2	4	4
No. of Short Communications in German	1	—	2	1	1
Total no. of Short Communications	15	20	45	63	67
No. of Book Reviews	9	4	13	15	20
No. of countries from which authors are drawn	13	11	17	19	20

Joint Commission on Electron Microscopy

The Commission is planning to hold its first meeting in London during the summer of 1954.

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

The final report by the sub-committee on nomenclature has been issued and was published in the *Journal of Polymer Science* (1952), **8**, 257.

The sub-committee on molecular-weight standards is continuing its work on the collection and correlation of the results obtained by many laboratories on standard polystyrene fractions which were distributed in 1948-9. A report on the present status of this project will be discussed at the Congress of the Union in Stockholm in 1953.

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

The Commission is planning to hold its first meeting in Bristol during the summer of 1954.

International Council of Scientific Unions

The Union was represented by R. C. EVANS at the meeting of the Executive Board and General Assembly of the International Council of Scientific Unions held from 30 September to 3 October 1952 at the Royal Netherlands Academy of Sciences, Amsterdam. Among the items of business discussed, were the following:

The retiring President (A. von Muralt), in his presidential address, discussed the difficulties which had been experienced in admitting new unions to the ICSU and proposed a revised structure for the Council in which a

relatively large number of small independent unions could be associated into federations covering broad fields of science. It was agreed that the proposals should be considered by the Unions and that the matter should be discussed at the ICSU General Assembly in 1955.

The International Union of Mathematics was admitted to the ICSU in the category of a General Union.

New statutes and by-laws, as proposed by the Executive Board, were discussed and adopted.

The Bureau for the period 1952-5 was elected as follows:

<i>President:</i>	B. LINDBLAD (Sweden)
<i>Retiring President:</i>	A. VON MURALT (Switzerland)
<i>Vice-Presidents:</i>	E. HERBAYS (Belgium)
	H. SOLBERG (Norway)
<i>Secretary:</i>	A. V. HILL (U. K.)
<i>Treasurer:</i>	A. NOYES (U. S. A.)
<i>Ordinary Members:</i>	N. KAMAYAMA (Japan)
	J. PÉRÈS (France)

Finances

The audited accounts of the Union for 1952 have already been published (*Acta Cryst.* (1953), 6, 815). The Union has again received generous support from UNESCO (£2143) and from U.S.A. sources (£6047), and this year there has also been a most welcome contribution from Dutch sources (£1149). Since the formation of the Union in 1947 a total of £34985 has been received in this way (£16506 from UNESCO, £8722 from U.S.A. sources, £8608 from British sources and £1149 from Dutch sources). Crystallographers throughout the world owe a deep debt of gratitude to the donors of these generous subventions which have made it possible to sell the publications of the Union much below cost price. Nevertheless it is clear that the Union cannot expect to receive indefinitely contributions of this magnitude for activities now well established, and a considerable increase in the price of most of its publications will unfortunately soon be inevitable. Nothing would help the Union more than a substantial increase in the sales of all its publications, and anything individual crystallographers can do to

encourage their colleagues to purchase these publications will be in the general interest of all. The publications of the Union may all be purchased direct from the various publishers; orders placed in this way bring the maximum profit to the Union and help to keep the costs of future publications as low as possible.

The great increase in size of *Acta Crystallographica* in 1952 is reflected in the fact that expenditure exceeded income by £4032, in spite of an encouraging increase in the number of subscribers and the increase in the subscription rate. The *Acta Crystallographica* Account now shows a deficit of £2083 to be set against the balance in the General Publications Account.

The expenses of producing *Structure Reports* exceeded receipts by £1030, and the *Structure Reports* Account now shows a deficit of £478 to be set against the balance in the General Publications Account.

The expenses of producing *International Tables* exceeded receipts by £4926, but expenses were abnormally heavy because they included the whole cost of printing Vol. 1, sales of which may be expected to continue over a number of years. At the end of the year the balance to the credit of this account was £1468.

Part of the subvention from U.S.A. sources was expressly earmarked for the *International Tables* and was credited to that account. The balance and the whole of the subvention from Dutch sources was credited to the General Publications Account which now shows a balance of £7550, from which the deficits on the *Acta Crystallographica* and *Structure Reports* Accounts must be met.

The expenses of the Apparatus Commission were met from the General Fund which showed an excess of income over expenditure for the year of £311. The accumulated balance to the credit of this fund is now £2909.

Membership of Committees, Commissions and Other Bodies

The membership of Committees, Commissions and other Bodies on 31 December 1952 was the same as in 1951 (see *Acta Cryst.* (1952), 5, 553).