crystallographic and the optical principles are explained where necessary, and references to other books conclude the various chapters.

Roughly the book is divided in equal halves, the first dealing with the determination of crystal structure and the second with the results obtained.

In the first half comparison with the former edition shows an increase in the space devoted to Weissenberg diagrams (including an appendix on their indexing) and to the methods of Fourier analysis and synthesis. In view of the great advances made in this field it would seem proper even further to enlarge this section. This would make it easier for the student to penetrate to the topical problems of structure determination.

In the second half of the book, dealing with crystal chemistry, a more radical overhaul of the first edition might have been expected. Not that the matter retained has become superfluous; but very little is to be found of the modern concepts of the chemical bond, the establishment of which is one of the main interests in present-day structure determinations. It is true that this discussion requires as a prerequisite some general description of the wave-mechanical explanation of the types of chemical bond; but this may be assumed as given to a student in his chemistry course just as the general notion of interference is presumed to be known to him from his physics course. The linking-up of the X-ray evidence with the results of wave-mechanical theory explains the interest taken in structure determinations nowadays, and to open this vista to the reader would be well worth some twenty pages.

In spite of these desiderata, to which may be added the wish for slightly better quality of half-tone reproductions, the reviewer considers this to be a most useful, handy and well-balanced book. He is glad to learn that an English edition is well under way.

P. P. Ewald

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99 Livingston Street
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Problemas de Cristallografía (morfologica y estructural). By J. Garrido. Pp. 149 with 81 figs. Madrid: Ediciones Hispano-Argentinas (distributed by Insula, Carmen 9, Madrid). 1949. Price 30 pesetas.

In his introduction the author says 'The usefulness of problems in the teaching of crystallography can never be too much insisted upon'. Every teacher will agree with that statement. In this little book Dr Garrido has followed up his text-book (with J. Orland) *Los Rayos X y la Estructura fina de los Cristales* (see *Acta Cryst.* **1**, 48) by providing a very useful collection of problems. These range over a wide field of crystallography—morphology, geometry of Bravais and reciprocal lattices, calculations, transformation of axes, stereographic and gnomonic projections, point-group and space-group symmetry, indexing of X-ray photographs and structure factors. Of these problems seventy are worked out completely and another fifty are left, without answers, for the student to solve. In addition the book is provided with a glossary of terms and a list of the equations used. The diagrams are good and the material is clearly laid out. This book will play a part in the development of the teaching of crystallography in the Spanish-speaking countries, but it deserves also to be widely used in all countries where crystallography is taught.

N. F. M. Henry

Department of Mineralogy and Petrology
Cambridge, England

Acta Cryst. (1950). **3**, 323

International Union of Crystallography

The audited accounts of the Union for the calendar year 1949 are printed below.

Acta Crystallographica Account for the year ended 31 December 1949

	£	s.	d.	£	s.	d.
Publication Expenses:						
Printing and Binding ...	2382	1	11			
Circularizing, Postage, Insurance and Sundries ...	77	11	4			
Publishers' Commission on Production and Sales ...	619	7	7			
				3079	0	10
Editorial Honoraria				429	12	6
Secretarial Wages and National Insurance				203	13	10
Office Rent, Postages, Telephone, Stationery, Printing and Sundry Expenses				106	16	9
Depreciation of Office Equipment				1	5	0
Balance carried forward to 1950				165	0	6
				£3985	9	5

	£	s.	d.	£	s.	d.
Subvention from U.N.E.S.C.O.	1323	8	2			
Subvention from U.S.A. Sources	166	13	4			
				1490	1	6
Trade and General Subscriptions, Volumes 1 and 2 ...	1941	4	5			
Sale of Single Copies and Reprints	554	3	6			
				2495	7	11
				£3985	9	5

International Tables Account for the year ended 31 December 1949

	£	s.	d.
Contribution towards General Expenses of Commission	250	0	0
Balance carried foward to 1950	2727	13	4
	£2977	13	4

	£	s.	d.
Subventions from U.N.E.S.C.O. for 1949 ...	2977	13	4
	£2977	13	4

Structure Reports Account for the year ended 31 December 1949

	£	s.	d.		£	s.	d.	£	s.	d.
Editorial Honoraria	1132	0	0	Subventions from U.N.E.S.C.O. for 1949...	661	14	1			
Assistants' Salaries	300	0	0	Subventions from U.S.A. Sources for 1949...	83	6	8			
Abstractors' and Office Expenses	218	0	0					745	0	9
				Balance carried forward to 1950				904	19	3
	£1650	0	0					£1650	0	0

General Fund Account for the year ended 31 December 1949

	£	s.	d.		£	s.	d.	£	s.	d.
Expenses of Officers attending Conferences ...	42	9	2	Subscriptions from Adhering Bodies for 1949				959	8	10
I.C.S.U. (1% of Subventions from Adhering Bodies)	9	12	0	Interest Received on Investments (less Income Tax)						
Office Expenses:				2½% Defence Bonds... ...	14	6	6			
Audit Fee, Stationery and Printing of Statutes and Bye Laws	33	15	9	2½% National War Bonds ...	27	10	0			
Balance carried forward to 1950	915	8	5					41	16	6
	£1001	5	4					£1001	5	4

Balance Sheet as at 31 December 1949

Liabilities

	£	s.	d.	£	s.	d.
Sundry Creditors:						
Cambridge University Press (as estimated by the Press Syndicate)	710	0	3			
(*Note.* At 31 December 1949 there were some 12,598 unsold copies of Parts 1 to 6, Volumes 1 and 2, of *Acta Crystallographica* in the Publishers' hands)						
Office Expenses	14	14	0			
Commissioners of Inland Revenue...	11	14	0			
				736	8	3
Acta Crystallographica Account:						
As at 1 January 1949 ...	3631	17	5			
Surplus of Income over Expenditure for the year to date	165	0	6			
				3796	17	11
International Tables Account ...						
As at 1 January 1949 ...	1500	0	0			
Surplus of Income over Expenditure for the year to date	2727	13	4			
				4227	13	4
Structure Reports Account ...						
As at 1 January 1949 ...	2342	12	4			
Less Excess of Expenditure over Income for the year to date	904	19	3			
				1437	13	1
General Fund						
Surplus of Income over Expenditure for the year to date				915	8	5
				£11114	1	0

Assets

	£	s.	d.	£	s.	d.	£	s.	d.
Cash in Hand							2	9	9
Cash at Bank							4077	10	6
Investments (at Cost):									
£2000 2½% National War Bonds 1952/54	2052	7	9						
£2000 2½% National War Bonds 1954/56	2070	8	0						
£2500 2½% Defence Bonds ...	2500	0	0						
							6622	15	9
Structure Reports Commission:									
Assistants' Salaries paid in Advance							100	0	0
Subscriptions for 1949 Outstanding:									
U.S.A....	225	0	0						
Spain	75	0	0						
							300	0	0
Office Equipment at Cambridge and Belfast:									
As at 1 January 1949 ...	27	10	0						
Sale of Equipment at Belfast				15	0	0			
Depreciation				1	5	0			
	16	5	0				11	5	0
							£11114	1	0

N.B. No decision has yet been received from the Revenue Authorities on the question of Liability of the Union to British Income Tax. Provision has been made in the above Accounts for possible liability to British Income Tax on Investment Income only.

We have prepared the foregoing Balance Sheet and Accounts from the Books and Vouchers produced to us and we certify these Accounts to be correct and in accordance therewith, to the best of our knowledge and belief.

Sussex House
Hobson Street
Cambridge, England
23 *January* 1950

SLATER, DOMINY AND SWANN
Chartered Accountants