Table 3. *Optical data for the acicular crystals*

Solvent		Acetone	Nitromethane	Acetonitrile	Acetophenone
Refractive indices	α_D	1·491	1·493	1·499	1·532
	β_D	1·506	1·508	1·509	1·550
	γ_D	1·526	1·543	1·525	1·556
Optic axial angle (meas.)	$2V_D$	79°	64°	78°	60° (63° red), (58° blue)
Extinction angle	α: [c]	36°	43°	42°	19° blue, 21° red
Orientation		$\gamma=\mathbf{b}$	$\gamma=\mathbf{b}$	$\gamma=\mathbf{b}$	$\gamma=\mathbf{b}$

In order to distinguish further between the acicular crystals from different solvents, their optical properties were measured with parallel and convergent polarized light. These data are summarized in Table 3. Only crystals from acetophenone showed marked dispersion of the refractive indices with respect to different wavelengths of light. This is often shown by compounds involving an aromatic nucleus.

These results are all consistent with the existence, in the crystalline state, of complexes between molecules of BSX and certain solvents.

Reference

HALL, P. G. (1970). *J. Chem. Soc.* (*A*), p. 3137.

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 Executive Secretary of the International Union of Crystallography (J. N. King, International Union of Crystallography, 13 White Friars, Chester CH1 1NZ, England).

Professor Kathleen Lonsdale 1903-1971

Professor Dame Kathleen Lonsdale died on 1 April 1971. She was Professor of Chemistry and Head of the Department of Crystallography, University College, London from 1949 to 1968. Her many contributions to crystallography included her work as General Editor of the three volumes of *International Tables for X-ray Crystallography*. She was one of the first women to be elected Fellow of the Royal Society and the first woman President of the British Association for the Advancement of Science. As President of the International Union of Crystallography she chaired the sessions of the Seventh General Assembly in Moscow, 1966.

A full obituary will be published in *Acta Crystallographica*, Section A in due course.

Conference on Framework Silicates and Metals Cambridge (England), 10 December 1971

The Crystallography Group of The Institute of Physics and The Physical Society and The Mineralogical Society are jointly holding a one-day meeting at the Cavendish Laboratory, Cambridge, in honour of Dr W. H. Taylor, who will retire from the position of Reader in Crystallography in September 1971. The meeting will have two sessions on topics which have been of particular interest to Dr Taylor; in the morning the session will be devoted to *Framework Silicates* and in the afternoon the topic will be *Metals*. A Conference Dinner will be held in St John's College on the evening of 10 December.

Further information and registration forms will be available in due course through the two societies. Accommodation for the nights of 9 and 10 December (if required) will be provided in a College. In the meantime, the Local Secretary (Dr P. Gay, Department of Mineralogy and Petrology, Downing Place, Cambridge, England) will be pleased to give advice to prospective participants.

Diffusion des Rayons X aux Petits Angles (Bibliography)

The fourth and last bibliography in the recent series prepared under the auspices of the Commission on Crystallographic Apparatus of the International Union of Crystallography, *Diffusion des Rayons X aux Petits Angles*, by A. J. Renouprez, has been published. Copies have been distributed free of charge to all subscribers in 1970 to *Acta Crystallographica* or the *Journal of Applied Crystallography*. Additional copies can be obtained from A. Oosthoek's Uitgevers Mij N.V., Doomstraat 5–13, Utrecht, The Netherlands, at the price of 10 Netherlands Guilders (U.S. $3.00 or £1·25 at the present rates of exchange) per copy, including postage. In the event of foreign exchange difficulties, UNESCO coupons will be accepted. Orders may also be placed with Polycrystal Book Service, P.O. Box 11567, Pittsburgh, Pa. 15238, U.S.A., or with any bookseller.

Molecular Structures and Dimensions

The Executive Committee of the International Union of Crystallography has pleasure in announcing the publication of a new series of standard reference books entitled *Molecular Structures and Dimensions*. The aim of the series is to make the results of structural investigations by diffraction and related methods readily available to all scientists interested in molecular structures. It is designed to be easily usable by specialist crystallographers and by academic and industrial research workers in the related fields of chemistry, biochemistry, molecular biology and pharmacology. The new series is a continuation and extension of the *Tables of Interatomic Distances in Molecules and Ions* (Chemical Society Special Publication), which covered the literature until the end of 1959.

The first two volumes of the series are now available. They are edited by Olga Kennard and David G. Watson at the Crystallographic Data Centre, Cambridge, England and contain classified bibliographic information for over 4000 structures. Literature coverage is comprehensive from 1935 to 1 January 1969 and there are 500 additional references to 1969 publications. Volume 1 deals with general organic crystal structures and Volume 2 with complexes, organo-metals and metalloids. Entries are arranged in chemical classes with extensive cross-references. Individual compounds can be located through the formula or metal index and there is also an author index. The bibliography is the first attempt at bringing together all publications on related structures and provides a survey to the various areas of organic and organometallic chemistry which have been investigated by X-ray and neutron diffraction methods.

The series is published for the Union, in conjunction with the Crystallographic Data Centre, by A. Oosthoek's Uitgevers Mij N.V., Doomstraat 5–13, Utrecht, The Netherlands, from whom the first two volumes may now be obtained. Volume 1 costs 45 Netherlands Guilders (U.S. $12.50 or £5·25 at the present rates of exchange) and Volume 2 costs 35 Netherlands Guilders (U.S. $10.00 or £4·20). Copies or the personal use of scientists may be obtained at the reduced prices of 32 Netherlands Guilders (U.S. $9.00 or £3·75) for Volume 1 and 27 Netherlands Guilders (U.S. $7.50 or £3·15) for Volume 2. All prices include postal charges. Copies may also be obtained from Polycrystal Book Service, P.O. Box 11567, Pittsburgh, Pa. 15238, U.S.A., or through any bookseller. Standing orders can be placed for future volumes.

Book Reviews

Works intended for notice in this column should be sent direct to the Book-Review Editor (M. M. Woolfson, Physics Department, University of York, Heslington, York YO1 5DD, England). As far as practicable books will be reviewed in a country different from that of publication.

Introduction to crystallography. By DONALD E. SANDS Pp.xii+165. New York: Benjamin, 1969. Price not known.

The book is part of the Physical Chemistry Monograph Series edited by Walter Kauzmann of Princeton University, and the aim of the series is that each volume will cover one topic important in physical chemistry at an introductory level in 150 to 200 pages. *Introduction to Crystallography* by Donald E. Sands does just that. In his words, 'The proliferation and the importance of the results of crystal structure analysis confront the chemist with the need to learn the language of crystallography. This book is the outgrowth of the opinion that the training of the undergraduate chemistry major can include more of this language than the memorization of a list of lattice types. At the same time, it would be unreasonable and impractical to expect all chemists to become experts in this specialized field. The purpose, therefore, is to treat the subject in a manner that will quickly and painlessly enable the non-specialist to read and comprehend the crystallographic literature. It is hoped that this introduction may serve as a useful starting point for those students who wish to pursue the subject further.' (p. vii).

The first four chapters introduce lattices, point groups and space groups. Chapter 5 introduces both the theory and experimental methods of X-ray diffraction, chapter 6 covers briefly crystal structure determination methods, and the last chapter summarizes some simple structures. The book is written in an easy style and has a large number of exercises scattered throughout the text and at the ends of chapters, with answers and hints collected together at the back. Having mentioned the excellent framework of the book, the reviewer must now make some adverse points. Because of the introductory level and the large number of topics covered in a short space, each topic tends to have only a brief outline. It is therefore essential that each one be clearly and correctly presented. If there are errors then there is no extra material in which the student can overcome a mistaken impression, and this sometimes happens. Thus when lattice points are being introduced (before any symmetry has been discussed) a footnote adds (p. 6) ' We will frequently use the terms lattice point, identical point, and equivalent point interchangeably. Lattice points may be considered a special case of identical (or equivalent) points in that they are related to each other by lattice translations. All lattice points are equivalent to each other, but equivalent points are not necessarily lattice points.' The N_4S_4 molecule (p. 40) is introduced as having no axis higher than 2, thus ignoring the $\bar{4}$ axis and the fourfold nature of the molecule. The monoclinic lattice is given an obscure justification (pp. 48, 56). Miller indices are introduced for single arbitrary planes in a lattice rather than for sets of lattice planes. Fourier series are introduced for functions with a repeat of 2 instead of 1, hindering the transition to structure-factor and electron-density formulae. Point group symmetry is introduced mainly with the Schoenflies notation used by spectroscopists, and a transition has to be made for space