

MOULT, J., YONATH, A., TRAUB, W., SMILANSKY, A., PODJARNY, A., RABINOVICH, D. & SAYA, A. (1976). *J. Mol. Biol.* **100**, 179-195.

PERUTZ, M. F. (1942). *Nature (London)*, **149**, 491-494.  
SHRAKE, A. & RUPLEY, J. A. (1973). *J. Mol. Biol.* **79**, 351-371.  
STEINRAUF, L. K. (1959). *Acta Cryst.* **12**, 77-78.

## International Union of Crystallography

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### Availability of deposited atomic coordinates from the Cambridge Crystallographic Data Centre

Over the past few years an increasing number of journals have adopted the policy of depositing atomic coordinates relating to organic and metalorganic structures with the Cambridge Crystallographic Data Centre (CCDC). It appears that there has been some misunderstanding about accessing such deposited data and concern about its availability to interested scientists. This note by the CCDC is intended to clarify the situation.

Deposited data are available on request from the CCDC and a note to this effect is included in each publication which involves deposited data. The CCDC responds

promptly, and free of charge, to each request either by sending a photocopy of the original deposited tables or, if the structure has already been checked and entered into the Structural Database, by sending a computer listing of the data together with other key information and a plot of the structure.

Deposited data incorporated in the Structural Database are also available by accessing tape copies of the Database distributed through National Affiliated Centres and individual laboratories in the following countries: Australia, Austria, Belgium, Brazil, Canada, CSSR, Denmark, Finland, France, Federal Republic of Germany, Hungary, India, Israel, Italy, Japan, The Netherlands, New Zealand, Norway, Saudi Arabia, South Africa, Switzerland, UK, USA and USSR. However, as indicated above, deposited data can be obtained directly from the CCDC. Deposited data are thus available worldwide independent of the distribution and currency of the Structural Database.

## Book Reviews

*Works intended for notice in this column should be sent direct to the Book-Review Editor (J. H. Robertson, School of Chemistry, University of Leeds, Leeds LS2 9JT, England). As far as practicable books will be reviewed in a country different from that of publication.*

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**Smectic liquid crystals: textures and structures.** By G. W. GRAY and J. W. GOODBY. Pp. xxvi + 162. Glasgow: Leonard Hill, 1984. Price £46.00.

Smectics (from the greek *σμηγμα*: soap, rubber) are layered systems, like soap itself and many stearate, laurate, etc. . . , salts in water, or phospholipids in water. The mention of these chemical species is sufficient to indicate the importance of these modifications of condensed matter in applied sciences and biophysics. But, as elements of a set of materials displaying a remarkable polymorphism, these are also of intrinsic fundamental interest. This book deals with a second group of smectics, made of pure organic compounds, with elongated molecules having a rigid central aromatic part, and more or less flexible moieties of various chemical natures. Fundamental problems in chemistry, molecular and structural properties, . . . , are more at hand with this second group, whose study has been developed considerably in the last 15 years without showing any sign of unrest up to now, on the contrary. The same molecules are also at the origin of other liquid-crystalline mesophases, like nematic, cholesteric and 'blue' phases. The authors of this monograph, after a short introductory chapter which

contains a reasonable bibliographical account of nematic, cholesteric and blue phases (also with a bibliography concerning mesophases made of plate-like molecules), turn to a detailed and systematic description of smectic polymorphism, each of the first nine chapters being devoted to one of the known smectic phases (in the alphabetic order of the terminology, *viz A, B, . . . , I*); chapter 10 is an update of the previous chapters which, but for a few exceptions, deal with results obtained before 1982. Chapter 10 contains, in particular, a brief account of: the hexatic phase, which has proved important as a concrete example of two-dimensional melting; antiphase behaviour in the bilayered structures of nitro and cyano compounds, where the existence of a longitudinal dipole brings new interesting ordering features; and ferroelectric phases of chiral molecules, much studied today for display devices; it ends with a detailed and useful table of the structural properties of smectic phases. The whole text is completed by a beautiful series of 124 colour optical micrographs of the typical textures displayed by the various smectic modifications.

Gray and Goodby are chemists and have played an important role in the synthesis of new liquid-crystalline molecules and in the discovery of liquid-crystalline phases. With any new material of these types the standard methods of characterization used by the chemists are (1) inspection