Norton, 1975) $\Delta C_s^3 = 1{\cdot}9\,(3)$ and $\Delta C_2^5 = 20{\cdot}4\,(3)°$. The torsion angles in the ring are given in Fig. 1. The four atoms P(1), C(2), C(4) and C(5) lie in a plane (all σ's $< \sigma_{mean} = 0{\cdot}01$ Å) while C(3) deviates from that plane by 0·607 Å. The angle between the planes of the phenyl and phospholane rings is 86·8 (3)°, whereas in the presence of a C(2)=C(3) double bond conjugation forces the parallelism of the rings (Gałdecki, 1979; Gałdecki & Główka, 1980).

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Acta Cryst. (1980). B**36**, 2193

Co-editors of *Acta Crystallographica*

Professor J. M. Cowley, Department of Physics, Arizona State University, USA, and Professor M. M. Woolfson, Department of Physics, University of York, England, have resigned as Co-editors of *Acta Crystallographica*. They have been succeeded by Professor R. Collela, Physics Department, Purdue University, USA, and Dr B. T. M. Willis, Materials Physics Division, AERE Harwell, England. Dr S. Jagner, Department of Inorganic Chemistry, Chalmers University of Technology and University of Göteborg, Sweden, has also been appointed a Co-editor, whilst Dr M. Hospital, Laboratoire de Cristallographie et de Physique Cristalline du CNRS, Talence, France, was appointed a Co-editor earlier this year. The full addresses of all Co-editors of the journal are given on the inside front cover of each issue.

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.

Acta Cryst. (1980). B**36**, 2193–2194

Textures of liquid crystals. By D. DEMUS and L. RICHTER. Pp. 228. Weinheim: Verlag Chemie, 1978. Price DM 185.00.

Liquid crystals are the self-ordering phases *par excellence*. Given half a chance, they will usually form complex patterns of loops and whorls, and the bulk phase will be broken down into an intricate array of domains. It is convenient to distinguish between the *texture* of a mesophase at μm–mm level and the *structure* of the mesophase at the immediate intermolecular level. The former is a consequence of the latter (in the sense that the structure of a snowflake is a consequence of the structure of the water molecule) but the interrelation may be far from self-evident and many a newcomer to the subject has spent a fascinating hour or so watching the spontaneous creation and modification of psychedelic patterns – using a polarizing microscope and hot stage – without having the remotest idea of the underlying molecular patterns or of the interplay of physical constraints which give rise to them. This beautifully illustrated book should cater for precisely this situation. The first half of the book is a survey of structure and texture types for the thermotropic phases (nematic and cholesteric phases, and smectics of types *A*–*G* inclusive). It is well illustrated with a compilation of diagrams mostly selected from the existing literature.

It is the second half of the book, however, which makes it uniquely useful. This is an atlas of optical micrographs of mesophase textures. There are over 200 plates, many in realistic colour. A few examples of lyotropic phases are included but the main emphasis is on the thermotropic, and the authors have made a valiant attempt at a comprehensive survey. We find classic examples of focal conic structures and old friends like MBBA, together with mesophases of controversial or little-understood types, like the smectic *D* and the cholesteric blue phase. This book is therefore very much a 'state of the art' document. Three or four letters have been added to the smectic alphabet since its compilation but