

19.X-7 DO WE NEED A VOLUME D? By A.J.C. Wilson, Crystallographic Data Centre, University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, England.

There have been two proposals for a Volume D. The first, Physical Properties of Crystals, has a long history, and there is a mass of material concerning it in the files of the Commission -- not yet properly digested by the present Editor. The second has been made in recent months by Dr V. Kopsky, Representation Theory of Space Groups, probably sufficiently voluminous to have to be bound in three parts. The approximate Table of Contents would be:

1. Matrix Groups
 - 1.1 Images of representations and double-valued representations of space groups
 - 1.2 Clebsch-Gordan products
 - 1.3 Molien series and extended integrity bases
 - 1.4 Stability spaces, epikernels and exomorphic group-subgroup relations
2. Representations and lattices of normal subgroups
 - 2.1 Linear groups
 - 2.2 Plane and layer groups
 - 2.3 Space groups
3. Symmetry-adapted bases
 - 3.1 Linear groups
 - 3.2 Plane and layer groups
 - 3.3 Space groups

A Volume D of the first kind would probably not present any difficulties of compilation or finance very different from those of A, B and C, but one of the second kind might have a very limited circulation.

If the Open Meeting shows a lively interest in either of or both the proposals, the Commission will attempt to arrange an ad-hoc meeting for further discussion.

19.X-8 CRYSTALLOGRAPHIC PUBLISHING: REWARDS AND CHALLENGES. S. C. Abrahams, AT&T Bell Laboratories, Murray Hill, New Jersey 07974, USA.

One of the principal objectives in founding the International Union of Crystallography was to promote the publishing of crystallographic research and other works. An overview of the IUCr's subsequent publishing record, and a consideration of the possibilities of enhancing future publishing services by incorporating new information technology, is now timely at this XIV International Congress some four decades later. The initial volume of *Acta Cryst.* contained 76 papers by authors from 13 countries. Over the following decades *Acta Cryst.* has grown into three independent Sections and *J. Appl. Cryst.* which, together in 1986, contained 1024 papers by authors from 48 countries. Crystallographic papers are, however, published in a wide variety of journals and only one in about eight appears in an IUCr journal. Some of the factors that contribute to an author's choice of journal will be discussed. Participants at this Congress who normally publish elsewhere are cordially invited to consider submitting their papers to *Acta Cryst.* or *J. Appl. Cryst.* Crystallographic publishing in the future offers fascinating promise. Electronic transmission of manuscripts between authors, editors, reviewers and typesetters is already feasible, and will increase rapidly as application programs based on the new Standard Generalized Mark-up Language become available and pass into common use. Efforts are currently under way to include the numerical databases in this process. Journal pages from current and older issues may soon be electronically requested on the readers' screen, as advance abstracts may already be called up for some journals. Mechanisms for recovering initial electronic publishing costs may form a challenge larger than that of installing the necessary technology.

19.X-9 FUTURE TRENDS WITH ACTA. By C. E. Bugg, Department of Biochemistry, University of Alabama at Birmingham, Birmingham, Alabama, U.S.A. 35294.

Acta Crystallographica provides an international forum for publishing a wide variety of crystallographic papers covering topics ranging from diffraction theory to detailed structural studies of biological macromolecules. Thanks to the Technical Editor and his staff in Chester, papers accepted in all three sections of *Acta* are being published in a timely and effective manner. An outstanding international group of Co-editors is in place and the journal is attracting high-quality forefront papers. The Editor and Co-editors have received a number of suggestions regarding possible changes and expansions that might further strengthen *Acta*, and these will be examined in detail at meetings of the Commission on Journals in Perth. Possible future trends for *Acta Crystallographica* will be discussed in light of the discussions at Perth.

19.X-10 TRENDS IN THE JOURNAL OF APPLIED CRYSTALLOGRAPHY. M. Schlenker, Laboratoire Louis Néel du CNRS/USTMG, B. P. 166, 38042 Grenoble Cedex, France.

The operation of the Journal of Applied Crystallography of course involves four parties, all vital: authors, referees, readers (most of us belong to all three), and the technical staff.

To the editor, who admittedly may have a biased view, the present situation is that the JAC is reasonably author-friendly and useful to its readers, in particular because, thanks to the referees, the papers it accepts are good. The manuscripts rejected are few, but so are those accepted in their original form without alterations: the referees work in most cases very hard, and their suggestions always result in considerable improvement of the form, and sometimes contents, of the manuscripts.

Thanks to the Technical Staff in Chester, the publication quality is excellent.

However, the JAC's coverage of the field of applied crystallography is not as wide as it could and should be. The JAC's scope is by no means restricted to developments in the techniques of crystallography, and it does welcome papers on many aspects, other than crystal structure determination, of research in biology, chemistry, physics, materials science and engineering where crystallographic approaches or diffraction and scattering methods play a part.

It seems to be in the interest of groups involved in interdisciplinary work of this type to use several channels for their publications, and the JAC should be one of them.

Trends for the future of JAC will be discussed on the basis of conclusions reached at the recent closed meetings of the Commission on Journals.