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 General Secretary of the International Union of Crystallography (G. Boom, Laboratorium voor Fysische Metaalkunde der Riiksuniversiteit, Universiteitscomplex Paddepoel, Groningen, The Netherlands). Publication of an item in a particular issue cannot be guaranteed unless the draft is received 8 weeks before the date of publication.

International Summer School on Crystallographic Computing

4–12 August 1969, Ottawa, Canada

The Commission on Crystallographic Computing of the International Union of Crystallography is organizing a School on crystallographic computing to be held in Ottawa from 4 to 12 August 1969. The aims of the school will be to survey in some detail the mathematical procedures in crystal structure analysis, and the means of increasing the effectiveness of the fast digital computer in this field. The program will include lectures by invited speakers and a very limited number of short contributions by the participants.

The school is intended for practising and post-graduate crystallographers who have some programming experience, and who are familiar with a version of FORTRAN, ALGOL, or an equivalent language. Those interested in receiving further details should immediately contact: Dr F. R. Ahmed, Division of Pure Physics, National Research Council of Canada, Ottawa 7, Ontario, Canada.

International Union of Crystallography

Report of Executive Committee for 1967

The Report of the Executive Committee for 1967 has been published in *Acta Crystallographica*, Section A (*Acta Cryst.* (1968) A**24**, 705). It reports as usual on the meetings, publications, Adhering Bodies (including the latest list of names and addresses of the Secretaries of National Committees) and the work of the Commissions and of the bodies not belonging to the Union, on which the Union is represented. The reader is invited to consult the reference given; it was deemed superfluous to publish the full report in all three journals, namely Sections A and B of *Acta Crystallographica*, and the *Journal of Applied Crystallography*.

Book Review

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, England). As far as practicable books will be reviewed in a country different from that of publication.

Structure and bonding, Vol. 4 Pp. 229. Berlin, Heidelberg, New York: Springer-Verlag, 1968. Price $12.

This book is one of a series issued at irregular intervals, 'intended for the publication of papers dealing with problems in all fields of modern inorganic chemistry, chemical physics and biochemistry, where the general subjects are problems of chemical structure and bonding forces'. The book contains three articles; *Quantum Chemical Studies of the Submolecular Structure of the Nucleic Acids* (pp. 62) by S. Fraga and C. Valdemoro, *Ionic Radii and Enthalpies of Hydration of Ions* (pp. 20) by D. F. C. Morris and *Crystal Chemistry of the Chalcogenides and Pnictides of the Transition Elements* (pp. 147) by F. Hulliger.

The range of subjects covered by the articles is very wide and the thread of 'structure and bonding', which is presumably supposed to hold the articles together, is rather a tenuous one. Each article is predominantly a review with some new work included and the book is therefore very much like an issue of a review journal.

The article by Fraga and Valdemoro presents the results of an extensive series of approximate molecular orbital calculations on the constituent bases of ribonucleic acid and deoxyribonucleic acid, together with results on hydrogen bonded base pairs and on stacked bases. The authors attempt a tentative explanation of coding specificity in terms of the results obtained for the electron density distribution in the stacked bases. The theoretical and biochemical preliminaries are given only very briefly and this would perhaps make the article hard going for the more casual reader.

In the article on ionic radii Morris considers the origin of the idea of ionic radii and discusses how recent accurate X-ray diffraction results can be used to determine meaningful ionic radii. He then discusses two schemes for calculating absolute enthalpies of hydration of ions, both of which depend on a knowledge of ionic radii, and he suggests a new value for the enthalpy of hydration of the proton. The article is self contained, clear and easy to follow.

The final article by Hulliger gives a detailed account of the crystal structure of a large number of transition metal chalcogenides and pnictides, especially those containing bonds between like atoms. The structures are discussed in terms of a simple orbital model of bonding, the evidence for the model being drawn from electric and magnetic measurements made on the crystals. The article is comprehensive and appears to be exhaustive (over five hundred references are cited), and it seems to be intended for the specialist crystal chemist.

I do not think that this is the kind of book that everyone would wish to buy for himself, but it should find a place in most libraries.

B. T. SUTCLIFFE

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