Preferential prices for *bone fide* crystallographers, who must give a written undertaking when purchasing a volume that it is for their own use only, have been increased to £5.00 for Volumes I, II and III and £7.00 for Volume IV. Orders for volumes at preferential prices must be sent direct to The Kynoch Press or Polycrystal Book Service, from whom prospectuses are obtainable. All prices include postage.

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).

ACA Special Interest Group on Small-Angle Scattering

This Special Interest Group of the American Crystallographic Association has been established with the following Board of Directors: H. Brumberger (Chairman), P. Geil, R. W. Hendricks, P. W. Schmidt, B. P. Schoenborn, L. B. Shaffer. Enquiries about the Group should be directed to Dr H. Brumberger, Department of Chemistry, Syracuse University, Syracuse, New York 13210, U.S.A.

A two-session symposium on small-angle scattering will be held at the next meeting of the ACA to be held at Evanston 8–13 August 1976 (for details see the *Calendar of Events* section). The invited papers being presented will be on neutron diffraction analysis of oriented lipid bilayers (B. P. Schoenborn) and small-angle diffraction at the Stanford Synchrotron Radiation Project (R. M. Stroud).

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.

Topics in applied physics, Vol. 5. Mössbauer spectroscopy. Edited by *U. Gonser*. Pp. xviii + 241. Figs. 96. Berlin, Heidelberg, New York: Springer-Verlag, 1975. Price DM70, US $28.70.

This volume contains six essays on different aspects of Mössbauer spectroscopy, each written by a well known scientist actively working in the field, and compiled under the editorship of Professor Uli Gonser. As each contribution is essentially an independent entity, it is convenient in the first instance to discuss them individually.

The first chapter by U. Gonser presents the historical background to Mössbauer spectroscopy. The physical principles are introduced simply, with the minimum of mathematics but with a thorough explanation of the concepts. Similarly the principal hyperfine interactions are described using the simplest forms of the equations. Unfortunately the brief foray into combined effects is more difficult to follow, largely because of the lack of illustrated examples. The treatment of experimental techniques is straightforward, apart from the last section on polarization effects which, although interesting, seems to have been included at the expense of more widely used experimental techniques such as the application of an external magnetic field.

The second chapter by P. Gütlich attempts to survey the applications of Mössbauer spectroscopy to chemistry. It commences by reintroducing the principal hyperfine interactions in greater mathematical detail (in some 14 pages), although one feels that this should have been convered once and for all in the first chapter to avoid duplication. The remainder of the chapter is divided equally between a detailed discussion of isomer shift data and of the quadrupole splitting. The emphasis is placed upon iron compounds, but some reference is made to other elements. The chapter as a whole does not contain a single pictorial example of a Mössbauer spectrum, and this contributes to a feeling of frustration when, having seemingly digested the basic ideas, one is confronted with a long concluding list of tantalizing applications (including for example the study of surface reactions, frozen solutions, phase transitions, dynamic processes, *etc.*) without a single example. One might consider many of these topics to be highly relevant to any text on applied physics.

The third chapter by R. W. Grant gives an excellent account of the determination of magnetic structure from the combined magnetic–quadrupole interactions, and includes several examples where polarized radiation has been used. Although some of the equations are very complicated, they can be skipped over at first reading. It is a pity that no examples have been given for isotopes other than ^{57}Fe, and more reference to magnetic exchange interactions in non-stoichiometric materials and solid solutions would have enhanced the chapter considerably.

The fourth chapter by C. E. Johnson is probably the best, and is concerned with applications in biophysics. The account centres on the haeme and iron–sulphur proteins, and conveys the essential details in an interesting and lucid style without being sidetracked by the theoretical complexities involved in the analysis of the data.

The fifth chapter by S. S. Hafner discusses the Mössbauer spectra of soils and rocks obtained from the lunar surface by the Apollo and Luna missions. Much of the information has been hitherto buried in weighty conference reports and the geological literature, and this critical evaluation will be much appreciated by those who are not active in the field of lunar science.

The final chapter by F. E. Fujita describes applications to physical metallurgy. Many examples are given, and it is pleasing to find these discussed in terms of their relevance from the point of view of a metallurgist. The adoption of this approach makes the chapter well worth reading.

The overall standard of the book is high. Inevitably there are the usual problems arising from a multi-author publication such as duplication of essential introductory material, but in general the editorial supervision appears to have been good. Extensive references to the original literature are given in all chapters; there is an index, and a master reference list of symbols is provided. The selection of topics gives a fairly wide coverage of Mössbauer spectroscopy, but it is to be regretted that discussion has been restricted almost entirely to the ^{57}Fe resonance. While this was inevitable in chapters four and five, it creates an artificial bias in the other chapters. Nevertheless, this book is an essential acquisition for the library, and hopefully the price is low enough to tempt the individual buyer.

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X-ray spectroscopy. Par *L. V. Azaroff*. Pp. xii + 560, Figs. 154, Tableaux 8. New York: McGraw-Hill, 1974. Prix £11.00.

L'objectif du livre d'après l'éditeur, est de présenter non une synthèse mais 'an up to date description that should enable the reader to learn what is already known and to discover where many interesting problems still remain'. Ce double but fait que l'on ne doit pas chercher dans ce volume une oeuvre susceptible de rem-