

pictures. There is a viewer in a pocket with each book to be used with the numerous stereo pictures throughout the text.

The presentation is cursory: Carbon as a hydrogen-bond donor is described in less than two pages, and there is no discussion of the validity of the carbon hydrogen bond concept. Likewise the structure of liquid water is described in three pages, which may leave the specialist on water with raised eyebrows. Fortunately there are adequate references so that the student can look up and find that carbon as a hydrogen bonder is not fully understood and accepted, and that water is not as well defined as the text would indicate. It is, however, a commendable book because for the first time it has assembled data on the carbon hydrogen donor as well as other intriguing bonds such as, for example, the metal-hydrogen-metal bond. The thorough documentation, author index, subject index and appendix on neutron-diffraction data make this a valuable addition to the few books on hydrogen bonding.

* * *

Joseph G. Hoffman, a professor at the State University of New York at Buffalo, specializes in biophysics.

A sound approach

PHYSICAL ACOUSTICS, PRINCIPLES AND METHODS, VOL. 4, PARTS A AND B: APPLICATIONS TO QUANTUM AND SOLID STATE PHYSICS. Warren P. Mason, ed. 490 pp. and 489 pp. Academic, New York, Part A, 1966; Part B, 1968. \$15.50 and \$19.50

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About five years ago the first volume of this series was received very warmly as a modern approach to physical acoustics. Originally intended as a four-volume collection of articles on acoustics in solid-state physics, the series has grown far beyond these confines.

Most of the material contained in the seventh and eighth books (that is volumes 4A and 4B) is related to the topics indicated by the subtitle. The editor has included chapters that one might consider a must, like the fine papers on ultrasonics, Fermi surfaces and on nuclear spin-phonon interactions. But one also finds, in part B,

an article on plasma waves in ionized gases. It is this order of arrangement that is somewhat disturbing. Another example is that although volume 4A contains two papers discussing dislocation damping and volume 3B a chapter on the effect of impurities, the entire volume 3A is entitled "The Effect of Imperfections."

The 16 individual chapters in volume 4 are very well written and self-consistently organized. The emphasis is on the treatment of specialized or advanced topics; therefore the reader should not be discouraged if he does not find certain discussions in this volume that he might expect. The topic may have been treated in one of the previous six volumes or, perhaps, will appear in a future volume, which one might hope will include an index covering all the chapters in the entire series.

* * *

The reviewer is associate professor at Georgetown University and is teaching graduate courses in physical acoustics and in solid-state physics.

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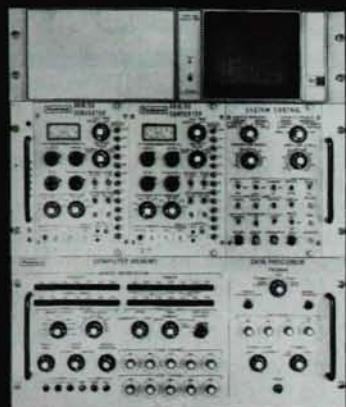
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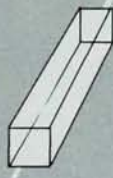
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