adequate coverage of the biochemical and physiological aspects of serotonin, there are two chapters dealing with the possibility that the amine is a neurotransmitter in brain which may play a role in mental disease and in the action of psychoactive drugs. Another interesting chapter summarizes evidence for involvement of serotonin in a wide variety of disease states such as the carcinoid syndrome, phenylketonuria, anaphalactoid reactions, migraine, and more than a dozen others.

The author's tone is one of reminiscence, and his anecdotes impart a personal quality that makes the book delightful to read. He is impartial and generous in discussing the work of others, emphasizing those stimulating ideas which provide opportunities for future research. If the book suffers from anything, it is from the author's reluctance to be critical. The monograph will be of value to anyone seeking a short and readable review of the subject, and its selected bibliography (365 references) will undoubtedly be more helpful than an exhaustive one to beginners in the field. For more experienced readers, the book will prove a useful companion to the several comprehensive reviews on serotonin already in print.

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Liquid State

Simple Dense Fluids. H. L. FRISCH and Z. W. SALSBURG, Eds. Academic Press, New York, 1968. xviii + 430 pp., illus. $19.50.

It is a well-known and sad fact that in many areas of science experimental and theoretical work do not go hand in hand. These areas characteristically are "classical" subjects in which no major breakthrough has occurred in recent years. The underlying principles are "understood" or believed to be so, and all that is left is to compute and to experiment. Furthermore, since both the computations and the experiments are difficult, a lengthy and unglamorous malaise sets in and a good part of the work in these fields becomes pointless. Experimentalists grind out facts which may or may not be interesting and theoreticians grind out theories which may or may not be correct, and there is little of the stimulating interplay between theory and experiment which makes science a live subject and of more than academic interest.

Such a fate has to some extent befallen the study of dense fluids. This is a pity, for the subject is far from exhausted, understood, or uninteresting. Our environment and our bodies are full of that state of matter. But the theoretical study of dense fluids is difficult, very difficult. Unlike the gaseous and crystalline states, the dense fluid has no ideal state such as the perfect gas and the ideal crystal which can serve as a zero-order reference system.

There are, therefore, no obvious simple theories of dense fluids. This does not mean, however, that there cannot be correct theories. Such theories, once understood, will also turn out to be, I believe, expressible in reasonably simple terms. I believe, indeed, that much progress along these lines has been made in recent years. For this progress to come to fruition, it is essential that there be closer contact between theory and experiment. Only in this way can the truth be arrived at. To be specific, experimentalists have to do experiments that can distinguish between theories, which means, in essence, that they have to work with simple fluids, and theorists must be unsentimental in rejecting theories, however cherished, if they do not agree with experiment.

The book under review is an attempt to bring theory and experiment closer together. Its objectives, according to the editors, are: "to compile the best data available for simple systems," that is, noble gases, diatomic molecules, and methane; "to present the data in convenient graphical and tabular form"; and "to give each compilation some theoretical context to indicate the importance of these studies to the development of our current ideas about the liquid state."

The book consists of nine articles which vary in length from 7 to 108 pages. As might be expected, they also vary in the degree to which they achieve the objectives of the editors. I found the article by Hunter and Rowlinson on thermodynamic functions along the orthobaric liquid line (15 pp.) and that by Buff and Lovett on surface tension (11 pp.), as indeed all the articles, very useful; the article by Schmidt and Tompson on x-ray scattering studies (70 pp.) a bit too dry, with too much tabular material; and the article by Rice, Boon, and Davies on transport phenomena (108 pp.) too detailed for this kind of volume. I was disappointed not to find an article on computer studies of liquids, for such studies are the kind of "experimental" work most amenable to theoretical analysis. The bibliographies in all the articles are good, and the book should serve a very useful purpose in furthering the studies of liquids.

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Werner's Papers

Classics in Coordination Chemistry. Part 1, The Selected Papers of ALFRED WERNER. Translated from the German and edited by GEORGE B. KAUFFMAN. Dover, New York, 1968. xvi + 207 pp., illus. Paper, $2.50. Classics of Science, vol. 4.

This volume is a welcome addition to the literature of the history of inorganic chemistry. Kauffman has selected and has given complete translations of six of Alfred Werner's most significant papers on coordination complexes. From the 1893 essay in which Werner first presented his coordination theory through the 1914 paper in which he showed that optical activity is not a unique property of carbon compounds, the papers presented show Werner's success at verifying his explanation of the compounds that carry his name today—Werner complexes.

Because so much of Werner's work is valid today, the book is of interest to both chemists and historians of chemistry. In fact, a solid background in inorganic chemistry is useful for a full appreciation of the papers. Of particular value are the large number of footnotes that Kauffman has added to the papers and the brief introductory surveys that begin each chapter. Each paper is placed in its proper setting in the development of chemistry, and later work related to Werner's theory is frequently cited.

Only one minor error was noted: the reference on page 6 should be to Walther Kossel (1888–1956) rather than to his father, the biochemist Albrecht. This book clearly belongs in the library of anyone interested in coordination chemistry and its development.

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