

the type of curve obtained when a solute is too small to form a boundary free of the meniscus. The second part of the book, a discussion of equilibrium between sedimentation and diffusion, is based on Gibbsian thermodynamics and includes multicomponent systems.

The usefulness of this book can be assessed by surveying the fields of work in which it will serve as a reference. The versatility of the ultracentrifuge is impressive: today it is used to study the sizes of small polymeric ions on the one hand and nucleic acids of molecular weight one hundred million or more on the other. Usually the experiment gives precise results, but often this precision is translated into accuracy only by paying careful attention to theory. In protein chemistry the ultracentrifuge is used more than ever for the determination of molecular weights, although equilibrium sedimentation and the Archibald method have largely replaced separate measurements of sedimentation and diffusion. The transport experiment still provides a standard test of homogeneity and also measurement of the sedimentation coefficient, together with the molecular weight, tells whether the protein is globular. In polymer chemistry the use of theta solvents is providing the breakthrough needed to make determination of molecular weight distributions a routine matter. The distribution of sedimentation coefficient is easily determined and often can be converted to one of molecular weight. The equilibrium experiment gives both the weight-average molecular weight and a measure of heterogeneity (*e.g.*, M_z/M_w). In nucleic acid chemistry, sedimentation to equilibrium in a density gradient has become a standard way of separating nucleic acids, since it can resolve DNA's which differ in buoyant density by 0.01 g./cc, and it is even used as an analytical method for determining the ratio of (G + C) to (A + T) in the DNA! For an understanding of the theory underlying these methods, the reader cannot do better than to consult this book.

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Introduction to Immunochemical Specificity. By WILLIAM C. BOYD, Professor of Immunochemistry, Boston University School of Medicine. Interscience Division, John Wiley and Sons, Inc., 440 Park Avenue South, New York 16, N. Y. 1962. viii + 158 pp. 15.5 × 23.5 cm. Price, \$8.00.

This book represents an easily readable introductory text of the basic concepts of immunochemistry and biological stereospecificity. Only an expert, such as the author, could have encompassed in this small book the many facets of immunology without losing sight of the more recent experimental results and developments in techniques. The references are up-to-date and, although aimed at the non-specialist, this book provides also a good survey of the field for the specialist.

The book is beautifully produced and the text is well illustrated with many figures and tables. The reviewer has enjoyed reading this book and feels that it might be recommended to biologists as well as chemists.

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December 10, 1962–January 10, 1963

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