

complished by a "well-rounded" mathematician, who is equally well acquainted with many fields of theoretical and applied mathematics. As an example of the author's precision, the reader has only to observe how carefully each theorem is stated, even to the point of designating the domain of each function—a consideration, which is usually omitted in other books on differential equations.

Physicochemical Hydrodynamics. By Veniamin G. Levich. Transl. from Russian by Scripta Technica, Inc. 700 pp. Prentice-Hall, Inc., Englewood Cliffs, N. J., 1962. \$20.00. *Reviewed by Stuart A. Rice, University of Chicago.*

ONE of the most neglected areas of research in physical chemistry in the United States concerns the interaction between hydrodynamic, thermal, and chemical processes. There are a few instances in which flow techniques have been used to extract fundamental information about chemical rate processes, e.g., Kistiakowsky's study of the diffusion flame for rapid reactions. In the volume under review, a brilliant exposition is presented of the relationship between chemical reactions and hydrodynamics. The treatment is clear, the physical reasoning incisive, and the analysis is often carried through to numerical results.

Not only is this work of great importance to the chemical engineer who must deal with problems of the nature considered every day, but it should also prove of great value to the practicing physical chemist who may find new methods of turning the analysis around and using flow processes to determine fundamental chemical parameters. The only complaint I have to make is that the type in which the equations are set is very small and occasionally difficult to read. I do not know whether or not it was photographed, but it appears to have been. This minor annoyance should not deter anyone from purchasing Levich's book, which I recommend without reservation to all physical chemists.

Physical Techniques in Biological Research. Vol. 4, Special Methods, William L. Nastuk, ed. 410 pp. Academic Press Inc., New York, 1962. \$13.00. *Reviewed by Joseph G. Hoffman, University of Buffalo.*

ONE fundamental criterion for a book on techniques is the extent to which it spells out the myriad details of experimental laboratory procedures. It takes thousands of hours to learn the detail, and the probability runs small that it will be learned by the writer who will communicate it to others. An early classic methods text is *Procedures of Experimental Physics* by John Strong. A good description of how to deal with physical reality is as important as good theory. But unfortunately those descriptions require much verbiage.

It is pleasing to find that kind of extended discussion in some of the chapters of this book on "Special Methods", which is the fourth of a series of six volumes. It is seen in chapter 1 where Chien and Gregerson review body-fluid volume and in chapter 3 where Davies re-

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