unknown fluorescent substance is particularly stressed. In a complimentary chapter G. H. M. Gottschewski, Mariensee, Germany, page 159-170, discusses mechanical equipment used in fluorescence work.

W. G. Schmidt, Giessen, Germany, deals with the application of the polarizing microscope in histochemistry, page 171-191. Following a lucid discussion of the basic principle of the instrument, applications in histochemistry are presented. Of particular interest is the use of the instrument in the differentiation of various connective tissue elements and its application for the identification of lipids.

H. Naori, Tokyo, page 192-219, discusses microspectrophotometry in the visible light range. The article is fundamentally technical and is concerned with the basic principles and the various apparatus that can be used. One might have wished for some discussion of application and results. Presumably such data will be presented in a forthcoming volume.

Ultraviolet microspectrophotometry is presented by W. Sandritter, Frankfurt am Main, page 220-338. Following a discussion of the physical foundation and consideration of various factors which might lead to erroneous results, the chemical basis of the technique is thoroughly reviewed. Qualitative and quantitative evaluations of absorption spectra are given and findings particularly concerning RNA and DNA are described.

K. Neumann, Cologne, on page 339-399, writes on the application of Roentgen rays. As in most articles, presentation of the basic principle is followed by a detailed description of technical aspects and a useful discussion of various applications, particularly for determining total dry weight and the weight of various tissue fractions.

Autoradiography as a histochemical technique is given by F. Haber, Goettingen, page 400-508, in the most extensive chapter of this volume. It is introduced by a thorough elaboration of the underlying basic principles and a review of various procedures useful for tissue preparations suitable for autoradiography. Results so far recorded in the literature are most thoroughly discussed.

They include investigations concerning RNA and DNA during mitosis, bone metabolism, iodine metabolism and other subjects including some of interest for zoologists and botanists. The bibliography which comprises no less than 31 pages attests to the thoroughness of this contribution.

The last chapter is written by H. Mayersbach, Graz, Austria, on immunohistological methods, page 559-693. It is a concise and clear exposition of the principles and procedures. It also contains a discussion of the specificity of immunohistological reactions and possible pitfalls of the techniques and a review of application and some results so far obtained.

Paper, print and quality of photomicrographs are excellent and compare favorably with the high standards which have been attained by the famous German handbooks of other disciplines. Everybody interested in the young and vigorous field of histochemistry will await with eagerness the next volumes. It seems rather likely that the explosive development of histochemistry will necessitate new editions or at least supplements in a very short time.

If there ever was an occasion to enter a plea for more extensive teaching of foreign languages, it would be an event such as this; of the 9 articles in this volume, only one by H. Naora is written in English. All other contributors used the German language. After all, it is not only fun to be able to understand foreign languages, but it has become a most urgent necessity.

M. WACHSTEIN

BOOKS RECEIVED

Cell, Organism and Milieu. Edited by DOROTHEA RUDNICK. The Ronald Press Company, 15 East 26th Street, New York 10, N. Y. $8.00

Progress of Biophysics and Biophysical Chemistry (Vol. 9). Pergamon Press Inc. 122 East 55th Street, New York 22, N. Y. $17.50