comed but which her reader, well provided with an index, finds wearisome in its reiteration—that of saying "as we shall see later," or "which I shall discuss in another connection," or some similar variant. Whereas these may have whetted the appetite of her audience, to her reader their frequent use is a bit wearing.

Those who know Miss Nicolson's work already will welcome this book, as will all lovers of Pepys' *Diary*. Scholars will find useful not only her footnote record of her research but also her occasional suggestion about where additional work is needed to do justice to some hitherto neglected phase or person in that lively period. Scientists should enjoy reading about the difficulties and the endeavors of their forerunners in the development of the new science. May Miss Nicolson long continue to delight us in further studies with her wit and her scholarship.

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## Electron Microscopy

In the spring of 1964 a symposium on quantitative electron microscopy was held at the Armed Forces Institute of Pathology, Washington, D.C. As a result, the participants wrote 50 articles that were published in *Laboratory Investigation* [**14**, pp. 739 to 1340 (1965)]. The same articles form pages 1 to 602 of this book, **Quantitative Electron Microscopy** (Williams and Wilkins, Baltimore, 1965. 615 pp., $12.50), edited by Gunter F. Bahr and Elmar H. Zeitler; I wonder if once around wasn't quite enough? I am not particularly plagued by this offering, some parts of which are thorough, interesting, and well done, or combinations thereof, but by the general concept, "Let's have a symposium! Bring your chapter."

My dyspepsia is real and warranted, having been fed a potpourri called Physics of Image Formation (11 articles), Quantitative Evaluation of Electron Micrographs (15 articles), Chemical Information from Electron Micrographs (4 articles), Negative Staining (3 articles), Adverse Effects of the Electron Beam Limiting Interpretation and Evaluation of Electron Micrography (9 articles), Effects of the Preparation Procedure on the Appearance of the Object in Electron Micrographs (7 articles), and Photography in Electron Microscopy (2 articles).

The quality of the offerings is quite different, but there is just about a chapter for everybody including the morphologist who, by this book, is being made "aware that the information he receives from his pictures is largely dependent on the technical aspects of electron microscopy." What the morphologist obviously needs is a bit of the plasma concept, some plural scattering theory, an equal part of dielectric constant, and eight aberration coefficients that can be reduced to a form

$$z = -R + \frac{x^2}{2R}\left(1 - \frac{C_a}{R}\right) + \frac{y^2}{2R}\left(1 + \frac{C_a}{R}\right) + \left(\frac{1}{8R^3} + \frac{C_s}{4R^4}\right)(x^2 + y^2)^2$$

which "contains only 2 parameters—and not the six other degrees of freedom. . . ." The trouble is that if you can derive plural scattering mathematically, you don't know what a cytosome is. Perhaps the physicist should read Trump and Ericson's excellent chapter on fixation of biological material.

The purpose of the symposium (and of this book) was to define the state of quantitative techniques in electron microscopy. The readers can easily determine the state and the fact that the book is misnamed. You can aggregate and count particles, determine magnification, statistically analyze size distributions, shadow cast, be concerned with contrast or dry mass, or attempt rather primitively to obtain quantitative data from qualitative, largely two-dimensioned micrographs. Even though we consider the book as a whole and accept the fact that each author is serious in his efforts, the volume doesn't hold together intellectually. Luckily, the reader can pay his money or take his choice.

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## Biochemistry

During the past decade interest in clinical enzymology has accelerated greatly. In fact it has almost become predictable that any enzyme present in one or more tissues will be searched for and, if found, studied in the serum. Although only several enzyme determinations, such as amylase and the phosphatases, are routinely available in most hospital laboratories, well over two score enzymes of clinical interest have been described. Therefore, a book like **Practical Clinical Enzymology** (Van Nostrand, Princeton, N.J., 1965. 363 pp., $12.50), by J. King, is a valuable reference source for workers who are interested in setting up a particular enzyme method and for individuals who wish to review the literature concerning the clinical usefulness of a particular enzyme determination.

The book contains three chapters (the first three) which discuss in clear and concise language basic information concerning the nature, kinetics, and measurement of enzyme activity. The chapters concerning individual enzymes are divided according to the enzyme classification recommended by the Commission on Enzymes of the International Union of Biochemistry. Detailed assay procedures for 31 enzymes are described. Each of these is preceded by a description of the chemistry of the enzyme reaction and is followed by a review of the clinical uses of the enzyme assay. The book concludes with a good discussion of methods used in the study of isoenzymes and an appendix that provides a description of the preparation of most of the commonly used buffers. The references are complete, and the index is adequate. Some may not agree with the methods chosen by the author for some enzyme assays—for example, the use of phenyl phosphate for the determination of acid phosphatase—or with the complete omission of automated methods. This book is recommended to all workers who are responsible for the performance of clinical enzyme assays.

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## New Books

### Biological and Medical Sciences

**Absorption Spectra of Minor Bases: Their Nucleosides, Nucleotides, and Selected Oligoribonucleotides.** Tat'yana Vladimirovna Venkstern and Aleksandr Aleksandrovich Baev. Translated from the Russian edition (Moscow, 1965). Plenum Press Data Division (Consultants Bureau), New York, 1965. 94 pp. Illus. $10.50.

**Advances in Biological and Medical Physics.** vol. 10. John H. Lawrence and

*(Continued on page 1581)*