phosphorylases, with brief examples of the members in the various classes; the oxidative enzymes; and the splitting, transferring, and isomerizing enzymes.

The last two chapters, in which the author discusses the inactivation of enzymes and the mechanism of enzyme action, are by far the best in the book. In these chapters, the author introduces the student to many concepts that are not found in the average college textbook.

The main criticism that I offer concerns the lack of adequate references, especially in the first seven chapters. It is my opinion that this introductory textbook will serve the purposes for which it was intended.

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The Dynamics of Virus and Rickettsial Infections. International symposium sponsored by the Henry Ford Hospital, 21–23 Oct. 1953. Frank W. Hartman, Frank L. Horsfall, Jr., and John G. Kidd, Eds. Blakiston, New York, 1954. xii + 461 pp. Illus. $7.50.

A résumé of this symposium written by one of the editors of the book recently appeared [*Science* **119**, 427 (1954)]. Since it provides an excellent summary of the content of the symposium and, thereby, an outline of the present volume, this review is critical rather than abstractive. Taken individually, the majority of the articles are timely and thought provoking; several are detailed research reports and several are general reviews. Most, however, attempt to reveal or to stimulate inquisitiveness into the basic dynamics of viral and rickettsial action and host relationships; the greater proportion of these succeed in this attempt.

The editors have allowed drastic revision by the participants. This is lamentable. A few of the authors, in the obsequious interest of a stereotyped scientific report, have removed the spice that added savor to their original presentation. One paper in particular has little, if any, resemblance to the original. Many references to earlier papers made by later participants and discussants are therefore without precedent.

In the main, the illustrations are well chosen and presented. The book would have had a more polished appearance if several charts of the quill-pen variety had been redrawn.

This book, because of a timely topic presented by a select group of participants, should be both stimulating and informative to the virus worker. The provocative viewpoints of these authorities, no doubt, will establish the trend for basic viral research for some time. Had these papers and the discussions been organized more coherently, this book could have been recommended to readers other than those actively engaged in research in this field.

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A First Course in Ordinary Differential Equations. Rudolph E. Langer. Wiley, New York; Chapman & Hall, London, 1954. 249 pp. Illus. $4.50.

This is a teachable and eminently sound textbook for a beginning course, written by a recognized authority on the subject. The author has included an astonishing range of topics in a very few pages and has achieved the happy combination of mathematical clarity with physical applications. Each item is treated with the utmost brevity compatible with precision. Abundant problems are supplied. Besides what may be called the usual material included in a beginning course, there are sections on the Riccati equation, Legendre, Bessel, gamma, and hypergeometric functions, and Laplace transform. These sections should be valuable and stimulating introductions to further study. Other features that may be mentioned are greater emphasis on exact equations, systematic use of first integrals, and reduction of the solution of the second-order linear equation with constant coefficients to the solution of a Riccati equation.

Here is a first-class addition to the postwar spate of differential-equations textbooks.

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Introduction to Nuclear Engineering. Richard Stephenson. McGraw-Hill, New York–London, 1954. xii + 387 pp. Illus. $8.

Richard Stephenson has produced a volume that admirably fills a very important gap in the field of engineering textbooks. As stated in the preface,

> . . . although the original development of nuclear energy was carried out almost entirely by theoretical scientists, now that the fundamental principles have been established, the further use of nuclear energy is falling more and more into the province of the engineer. If the engineering profession is to accept the responsibilities created by this new scientific field, the younger engineers must be willing to undertake such problems as radiation shielding, radiation damage, chemical processing of radioisotopes, and the engineering design of nuclear chain reactors.

The author has succeeded in writing a textbook that provides a solid basis for any engineering student, in his senior or graduate years, to acquire the rudiments of the underlying technology in this field. He has written from an engineer's viewpoint, supplying many illustrative worked-out examples in the text and a large selection of problems at the end of each chapter.

For those readers unfamiliar with the properties of neutrons and their interactions with matter, the first four introductory chapters are provided. The last of these is a fairly complete account of reactor theory, which is probably the part of the book that would be expected to be the most difficult for the average engineering student. However, adequate references to the more extensive discussion in the recent book by Glass-