of chemistry, while the accuracy and completeness of the information provided are such that chemists themselves will find the book a useful addition to their reference libraries. Necessarily in a book of this scope, sections of information indispensable to one group of users will prove of little value to others. The inclusion of trade names may be invaluable for the industrialist but is scarcely warranted from the viewpoint of the researcher, considering the large amount of space that they require. Users in the latter group will, however, be pleased to find liberal references to reviews and texts where further information may be obtained, and frequently also to the original literature.

The third edition has been brought up to date (first volume to mid-1952, second to the end of 1952), and the additional information has been included without any increase in bulk over the preceding edition by resorting to the use of abbreviations. These, however, are not extensive and can be interpreted easily without repeated reference to the key provided. The excellent printing and format of the book remain unchanged, strict adherence to alphabetical listing of the items having been maintained. The encyclopedia is carefully cross-referenced, and location of the desired information is rapid and easy.

Although the coverage of less common chemical compounds is not as complete as in dictionaries and handbooks of more limited scope, *Chemie Lexikon* records a comprehensive range of substances related to all branches of chemistry and neighboring fields, such as foodstuffs, dyes, drugs, metallurgy, geology, and biology. Physical and chemical properties, preparative methods, uses, sources of supply, and in some cases prices are reported. Terms, reactions, theories, and laws are carefully explained. Information on modern chemical knowledge and practices, biographies of noted scientists, statistics on the chemical industry throughout the world, and a host of other subjects are covered. Descriptions of apparatus are usually accompanied by an illustration, and structural formulas of chemical compounds are given. The user with a limited knowledge of the German language will find no difficulty in understanding the clear and simple style of the author.

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Textbook of Physiology and Biochemistry. 2nd ed. George H. Bell, J. Norman Davidson, and Harold Scarborough. Livingstone, Edinburgh–London; Williams & Wilkins, Baltimore, Md., 1953. 1002 pp. Illus. + plates. $10.

This textbook first appeared in 1950 and has been well received in the British Isles, for whose medical and dental students it was written. Dr. Bell is professor of physiology in the University of St. Andrews, Dr. Davidson is professor of physiological chemistry in the University of Glasgow, and Dr. Scarborough is professor of medicine in the University of Wales. Coming from three different disciplines, these authors have produced a well-integrated volume, with a lucid style and straightforward argument, in which enough clinical material is incorporated to point the reader toward applications in the wards.

The second edition is somewhat longer than the first, but there has been little change in organization of the text and almost none in the illustrations. The figures are well chosen, many from classical sources, some newly drawn, and are reproduced with clarity, many appearing as halftones. References at the ends of chapters have been more than doubled, mainly by the inclusion of new papers and monographs published during the last 3 years. Nevertheless, the authors show a certain conservatism in their choice of material, and a number of recent advances have not been treated.

This book may be described as basically a text in physiology, with somewhat more than the usual attention paid to biochemistry. It is hardly adequate to serve the needs of the courses in biochemistry now given in American medical schools. It should be found acceptable as a text in some physiology courses, since the treatment is somewhat simpler than that used in most of the great tomes currently imposed upon American medical students, the majority of whom begin the study of the subject with very little background. The authors have certainly developed an interesting and easily read volume that should he helpful to many students, including seniors in arts and science schools who have had some previous training in the field.

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The Major Features of Evolution. George Gaylord Simpson. Columbia Univ. Press, New York, 1953. 434 pp. Illus. $7.50.

Dr. Simpson's new book is an outgrowth of his well-known earlier work, *Tempo and Mode in Evolution,* and contains the essential material of the earlier volume in a greatly expanded form. It is, therefore, the outstanding and, in fact, the only work that integrates the mass of paleontological data with the latest information from genetics to synthesize general principles about the course of evolution and the causal factors that underlie evolutionary change. For this reason, it should be on the must list for all scientists seriously interested in understanding evolution.

The book is built around the same basic topics as was *Tempo and Mode.* The same type of factual material is used for illustration—chiefly the fossil record of vertebrate animals, with some evidence from invertebrates. The data are again treated in a quantitative fashion, with statistical concepts playing a prominent role in the formulation of the general principles. The book is nevertheless free from statistical formulas and thus quite readable for those without much knowledge of statistics.

In this new work one finds a much larger body of factual material, and a fuller discussion of the ex-