Methods of Biochemical Analysis. vol. I. David Glick, Ed. Interscience, New York, 1954. x + 521 pp. Illus. $9.50.

There are few research areas in biochemistry that do not have their own special experimental procedures. Indeed, it has been necessary, in many cases, that the development of adequate methods precede other significant advances. Hence, in the last decade or so, biochemistry has been characterized by the development of many new and versatile research tools. In turn, the value of these has been well demonstrated during the consequent marked evolution of biochemical knowledge. As Glick points out in the preface, with respect to the latter phase of this sequence of events, "Annual review volumes . . . have proved their value repeatedly and are now widely used and well established." It follows that biochemists will welcome the appearance of the first review designed to keep them familiar with the ever-increasing number of new methods as well as with new refinements and applications of older methods.

Two aspects of *Methods of Biochemical Analysis* are worthy of particular note. The first is the variety of methods discussed. Many of them are amenable to much wider application than is implied by the use of the word *analysis* in the title. The methods discussed in chapters entitled "Zone electrophoresis," "Chromatographic separations of steroids of the adrenal gland," and "Ultracentrifugal analysis of serum lipoproteins," to cite only a few examples, are appropriately described as analytic only in the broadest, and perhaps not the usual, sense of the word. The second notable aspect is a feature rather unique to the review under discussion. More typical review arrangement would have included the subject matter of the last two chapter titles in broader discussions of chromatography (or at least chromatography of steroids) and ultracentrifugal analysis. In fact, "Zone electrophoresis" is the only chapter title that mentions the method discussed without further restricting it to a particular type of compound, and in many cases chapter titles are further restricted to compounds of a given source, as illustrated at the beginning of this paragraph. Other examples of this use of very restrictive chapter titles are "Determination of sulfhydryl groups in certain biological substances," "Microbiological assay of vitamin B_{12}," "Analysis of mixtures of sugars by paper and cellulose column chromatography," and "Chromatographic analysis of radioactive iodine compounds from the thyroid gland and body fluids."

The first impression that results from these aspects of the review is that it would be more appropriately entitled "Biochemical Methods" and that the chapter titles should be a little more general. There is, however, a favorable consequence of this new approach that may well outweigh its disadvantages. This is illustrated in the introduction of the chapter entitled "Analysis of phenolic compounds of interest in metabolism." Here it is explicitly stated that "Only those methods with which the authors have had personal experience have been described in detail." The editor's choice or acceptance, as the case may be, of relatively restricted topics for review permits the authors to write from firsthand experience. This makes for short, clear, and concise chapters and allows the inclusion of valuable and reliable experimental details.

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Biochemistry and Physiology of Nutrition. vols. I and II. Geoffrey H. Bourne and George W. Kidder, Eds. Academic Press, New York, 1953. vol. I, xiii + 569 pp. Illus. $13. vol. II, xi + 641 pp. Illus. $15.

This concise treatise was written by 14 British, Scottish, and Australian scientists and by 14 scientists living in the United States. All the authors and editors have made important research contributions in their fields of specialization. The two volumes are primarily concerned with the basic metabolic functions of animals because these "have assumed a definite and indispensable place in the science of nutrition." There are 23 chapters, and approximately nine of them are essentially in the category of fundamental biochemistry. Substantially all of the others follow the usual nutritional pattern for discussions of dietary essentials and factors affecting their utilization, but in many of these chapters there is also emphasis on the roles of food components in metabolic reactions.

The major topics include a review of the early history of nutrition, history of vitamins, water and electrolyte metabolism, biochemistry of amino acids, carbohydrate metabolism, lipid metabolism, biosynthesis of protein, concise review of fat-soluble vitamins, vitamin-B complex, vitamin C, vitamins and hematopoiesis, structural changes in vitamin deficiency, microbiology of the alimentary tract, nutrition of invertebrate animals, biological oxidations, extensive discussions of enzymes and coenzymes, and brief reviews of iron metabolism and of calcium and phosphorus metabolism. There is a comprehensive chapter on trace inorganic elements. The treatise is concluded with a chapter of 75 pages on "Application to human nutrition," written by Grace A. Goldsmith. The "biochemistry" and the "nutrition" are about equally divided in each of the two volumes.

The editors assert that the authors were allowed a large measure of independence in the development of their chapters. This is evident in the considerable repetition of subject matter and in the fact that many relevant topics either were not included or were treated with undue brevity. For example, there is no reference to relationships between nutrition and cataracts of the eyes except for brief mention of cataracts referable to riboflavin deficiency or resulting from the administration of ascorbone. Although there are many papers on the relationships between fat utilization and melting point, length of the fatty-acid chains, and so forth, this subject is not mentioned. Nevertheless, the two